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ABSTRACT

The following papers dealing with education in Ireland are presented: "The Educational agenda: A View of the Future" (H. T. Sockett); "Curriculum and Policy in Irish Post-Primary Education" (B. O'Reilly); "A Response to Barney O'Reilly on Curriculum and Policy in Irish Post-Primary Education" (D. G. Mulcahy); "Constructing and Testing a Geography Trail" (Kevin Hurley); "Effective Communication of Mathematics at Primary Level: Focus on the Textbooks" (Catherine Mulryan); "Practical Work in the Leaving Certificate Chemistry Course" (Adrian J. Ryder); "Only Connect: Reflections on Autobiography and the Teaching of Literature" (Tom Mullins); "Introducing Irish Cultural Studies to the English Primary School" (Tom Arkell); "Some Aspects of the Psychological Concept of Motivation Applied to the Use of the Blackboard in the Classroom" (Francis Douglas); "An Examination of Selected Dimensions of National School Principals' Concerns for School Administrative Issues (Donald Herron); "Problems in the Financing of Higher Education" (A. C. Barlow); "Some Problems in the Financing of Second Level Education" (John Sheehan); "Community Workshops in the Youth Training Programme" (Rosemary Kilpatrick); "Education and Training for 16 Year Olds: New Approaches in Northern Ireland" (Jean Whyte); "The Role of Further Education Colleges in the Northern Ireland Youth Training Programme" (Colin McIlheney); "The Future of Adult Education in Ireland" (Liam Carey); "Television in Northern Ireland Secondary Schools: Research Findings and Implications" (C. W. J. Crough and J. J. Collins); "The Implications of Educational Technology for Postprimary Education in Ireland" (Michael Turner); "Information Technology - It's Impact on Irish Education" (Brendan Mackey)' "An ghaeilge I gCuraclam na Bunscoile" (Eoghan O'Suilleabhain). (RM)

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Edited by Dr. Jim McKernan
Education Department
University College Dublin

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Notes on Contributors

Hugh T. Sockett is Dean, and Professor, in the School of Education, University of East Anglia, at Norwich, England.

Barney O Reilly is Lecturer in Education, Thomond College, Limerick.

Donal G. Mulcahy is Professor of Education, University College, Cork.

Kevin Hurley is Lecturer in Education, Carysfort College of Education, Blackrock, Co. Dublin.

Catherine Mulryan is Lecturer in St. Patrick's College of Education, Drumcondra, Dublin.

Adrian Ryder teaches at Colaiste Iognaid, Sea Road, Galway.

Tom Mullins is Lecturer in English, Mary Immaculate College of Education, Limerick.

Tom Arkell is Senior Lecturer in The Arts Education Department, University of Warwick, England.

Francis Douglas is Lecturer in Education at University College, Cork.

Don Herron is a teacher in St. Cronan's Senior National School, Swords, Co. Dublin, and lecturer at St. Patrick's College of Education, Drumcondra, Dublin.

A. C. Barlow is Lecturer in Economics, University College, Cork.

John Sheehan is Lecturer in Economics, University College, Dublin.

Rosemary Kilpatrick is in the Research Unit, Northern Ireland Council for Educational Research, Queen's University of Belfast.

Jean Whyte is in the Research Unit, Northern Ireland Council for Educational Research, Queen's University of Belfast.

Colin McIlheney is in the Research Unit, Northern Ireland Council for Educational Research, Queen's University of Belfast.

Liam Carey is Professor of Community Education, St. Patrick's College, Maynooth.

C. Crouch is in the Faculty of Education, Ulster Polytechnic, Jordanstown, Co. Antrim.

J. Collins is in the Faculty of Education, Ulster Polytechnic, Jordanstown, Co. Antrim.

Michael Turner is a teacher in Templeogue College, Dublin.

Brendan Mackey is Chairman, Computer Education Society of Ireland, and is a teacher in the Vocational School, Wexford.

Eoghan O Suilleabhain is Lecturer in Education at St. Patrick's College, Drumcondra.

General Editor's Comment

While some of the papers contained in Volume 4 of Irish Educational Studies have their feet anchored in the traditional foundation areas of education: History, Psychology, Philosophy and Sociology, it is noteworthy to identify an increasing number of submissions concerned with curriculum. Indeed, Curriculum Studies is now establishing itself in Ireland as an important component in the professional study of education. Courses are now being offered in all Colleges and University Departments of Education in Curriculum Theory and Development. The experience of the 1970s in this country has seen the development of a distinctive Irish tradition addressing curriculum projects, concerns and problems.

As Editor of Irish Educational Studies, I had proposed that each Volume should present one invited paper. Given the amount of space devoted to curricular issues in this number of the Journal it gives me great pleasure to be able to publish the invited paper of Professor Hugh T. Sockett, who is Dean of the School of Education at the University of East Anglia at Norwich. People who know the curriculum field and its literature will know of Professor Sockett's reputation and also know that the University of East Anglia is one of the most exciting centres for the study of curriculum and its pioneering research work through the Centre for Applied Research in Education has advanced our knowledge and understanding of 'the teacher as researcher' movement; curriculum project evaluation; and other cognate areas of research and development work in education.

Professor Sockett's paper is an important contribution to the development of a set of principles of procedure which will help lay the basis for a professional code which will guide teachers as professionals at a time when education is being held accountable by the public. Professor Sockett argues that education has lost public esteem and that accountability is needed to restore confidence and trust in the profession.

If these Studies themselves do not give a fair notion of the curriculum; administrative behaviour; problems of financing education; the role of youth training programmes in vocational education and the impact of the media and new technology in education, then an editorial comment is not likely to succeed in so doing.

I wish to take this opportunity to thank all of the contributors to Volume 4 of Irish Educational Studies as well as those in the Association who have worked so diligently alongside the Editor in making the Journal the success which it is. The world looks good from my office window at Belfield on the eve before my departure for a sabbatical year at Harvard. To all of you my best wishes for continued success in your work.

Jim McKernan,
General Editor,
University College Dublin,
February 1985

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THE EDUCATIONAL AGENDA : A VIEW OF THE FUTURE

Professor H. T. Sockett

We educate for a future we cannot predict, yet a society assigns to its education service the task of preparing people for that very future. When we add to that paradox our acceptance that we live in a time of accelerating change, the provision of any single educational programme which proved to meet the needs of the future would be a triumph or an accident. In the essays of educational futurologists we find the fundamental aims of education unchanged and the agenda of problems looks remarkably familiar. So, even in the distant future, we will want an education which helps people to rational autonomy, moral personal and civic responsibility, satisfying if changing careers, effective use of leisure and so on, if we don't want to move beyond freedom and dignity. The distant future will also have such educational chestnuts in it as the arts-science gap, the shortage of specialists, the challenge of deprivation and so on. Plus ca change.

The notion of 'the future' is largely rhetorical: peering into it has all the charm of astrological entertainment. Novelists and other prophets tend, like Orwell, to see it pessimistically. Film-makers use their high-tech imagination, like Speilberg, to write fairy stories. Educational writers, like Stonier,[1] are almost entirely optimistic about the social and political context into which education will be placed. Visions of the future often discount the problems of the present: as though a view of the future is "present problems solved". A core curriculum publicly agreed and accepted, wide access to continuing education, an equitable examination system, competent management of educational resources . . . the stuff of dreams. My stance if not pessimistic is much less optimistic than it was.

In this address it would be possible to take a panoramic view and set out present problems as an agenda of future priority. I propose to my myopic, focussing on the problem of the relation between education as an institution and the public. All aspects of that institution in the public domain have suffered a steady loss of esteem since the heady days of the early 60s. We have not sustained or not built up an appropriate relationship with our public. There are acute problems of direction and control at different levels within the education service. Parents Rights is a slogan which expresses an anxiety about the character and extent of public participation in education - and its quality - and some of these concerns have been expressed in the movement for accountability launched after the 1976 Callaghan speech and the Great Debate. Indeed it is the notion of professional accountability that points up the problem most clearly. On the one hand the professional is expected to know something the non-specialist doesn't, and he is therefore expected to deliver. Whether he does or not he is accountable and therefore he must communicate with his satisfied (or dissatisfied) constituents. Maybe we haven't delivered because aspirations have been too high. But we don't communicate well. We need to get a more effective public conversation about education. We need to re-establish public trust. (That, I suppose is the view of a myopic pessimist, not the panoramic optimist.)

My belief is that the re-establishment of trust and confidence is critical in a society undergoing profound social change. I believe that the form of that re-establishment must be constructed so that it models the kind of desirable openness of government at national and local level. We must eschew the secretive. Openness can best be achieved through the development of professional codes of practice which are public, accessible and through which standards can be monitored and grievances redressed. I have argued for this conception in greater depth elsewhere.[2] I propose to adumbrate it briefly, against the backcloth of the context into which I now see it fitting and then address its implications for authority-relations and management within the profession and for understanding in the framework of local democracy.

I

I sense a cynicism about probity in public life and about the place of the professional which, apart from the specific educational events - like 1968 or the William Tyndale Affair - provides a backcloth for my claim that we need to re-establish public trust through effective accountability measures. There is space here for examples only.

Ministers used to take responsibility for the acts of their officials; that way, as the resignation of Sir Thomas Dugdale indicated in the Crichel Down Affair, the integrity of executive accountability to the legislature was preserved. There can still be the political sacrificial lamb, as with Carrington, and the good old sexual peccadillo, but facing the De Lorean £77 millions missing, we are uncertain now what the rules are, indeed whether they are not simply ad hoc. Take another example: MacDonald[3] wrote in 1979 with withering scorn of 'a decade' of conspiratorial deceit at the highest levels of political administrative and business responsibility in the matter of Rhodesian sanctions' set out in the Bingham Report and the political connivings which ensured that nothing was done. Or another example: as the Legislature struggles to develop more effective tools for public accountability, so the Executive relishes the challenge of forestalling those attempts of baulking at its accountability - the firm smack of irresponsive and secretive government. John Michael's[4] book The Politics of Secrecy reveals the almost pathological distaste of openness among civil servants. (The public and particularly the House of Commons can be so terribly tiresome.) Our protests are muted; we laugh (or cry) at Yes! Minister where that amazing fiction of self-aggrandisment, manipulation, incompetence, deceit and hypocrisy is, we are all led to believe, indistinguishable from the reality.

Such complaints, it will be said, show a lack of a robust political sense. Maybe: but as James Dunn[5] has suggested, there is an alarming and growing obtrusive chasm between the rhetoric of our liberal democratic theory and the actual political reality of dealing and manipulation, pressure groups and real sources of power. Liberal Democracy is now a 'painfully precarious political theory', as he puts it. Profound change on the political front in this country has begun in Northern Ireland and the economic circumstances of Liverpool in 1984 mirror closely those of Londonderry in 1968 as the industrial heartlands react to the post industrial economy. With this kind of collapse, with the sophistication of political advertising, the Executive's right to determine when an election is called, and a political party system in disarray, to be optimistic is the privilege of the blind or the well-protected. We are more fragile than we think.

A generalised cynicism about actors in public life must now be taken as part of the political pattern; how far that is due to the failure of bureaucrats and politicians to meet high standards of honesty and competence is outside easy assessment. Departments of State which interact closely with the public, like the Department of Employment, together with the Police have long been the butt of criticism. In recent years this attitude has spread to the professions. Solicitors, the Health Service, opticians and teachers, including University teachers are under fire, from a government which has made itself the spokesman for cynics. The Prince of Wales has made architects legalised sport.

Two factors seem to be of importance here. First anyone who claims privileges in an occupation of profound human importance and who simultaneously claims that material reward is not the governing motive is publicly now beyond belief.

Cronin's tale The Citadel of the doctor who sold out is a social anachronism of professional life today. The fact is that the professional is not seen as someone with duties or obligations beyond that which marks him off from other occupations but simply as a high-status worker with a good grip on the market or resources. So the Clegg Committee, charged with looking at comparability across private and public sectors had also to include some, as it were, free-floating assessment of what a profession was worth. That failed, partly because the task was impossible and partly because Government could'nt afford to pay anyway, with the result that professional protectionism was exposed to the market-place. So, as

Roy Hattersley put it recently, professional standards are just restrictive practices.

Social changes bring about professional redundancy as technological changes do in the management and industrial sphere. So Austin Mitchell is surely right that to have 4 specialists, estate agent, solicitor, survey and building society manager involved in house purchase is unnecessary, reflective of days now past. Equally in education, the need to establish the notion of the teacher graduate professional was critical up to the 70s, but it now is a massive obstacle to effective popular mass education. Unions oppose what is desperately needed in the skills of the redundant, the parent, the helper, the assistant in schools to work under direction with children as individuals. But the bulwarks of professions are very strong.

Cynical stances towards public life create considerable educational problems in political education. How can schools and Universities equip youngsters with appropriate political skills, habits and attitudes? Equally, how can education as an institution attack the cynicism and the distrust it has attracted?

Rather weak forms of accountability have been introduced. Resources restriction have provided a firm enough governor. The threat is that, as resources continue to constrict, we will be left across education with weak accountability systems and thereby with no tools or money to develop confidence, trust and the political support needed. Institutions contain people of diverse attitudes and the institutions themselves have diverse constituencies. Kogan[6] has indicated the need for convergence within institutions, the need for a 'negotiated working understanding', not as some empty attempt to dismiss ideological divisions but as a way of emphasising the common goals of the institution in a period in which confidence and trust cannot be guaranteed. It is interesting to note that Universities have been under attack politically (and in my view with breath-taking ignorance) on the methods of external moderation. Their internal accountability system is not believed. The effect of that is to undermine the value of the one tangible thing a graduate has. his degree and the Universities' primary commodity.

The temptation to for accountability which is bureaucratic and results-based may recur; but it will not allow the development of understanding and the participatory dialogue which is critical to the development of confidence and trust, and which matches political needs if some semblance of internal democracy is to survive into the post-industrial society.

II

The future demands an education service which can be highly flexible and adaptable to changing demands but which is highly responsive and sophisticated in its relations with the public and accountable for its policies and performance at the macro and micro public levels. That applies as much to Universities and Colleges as it does to Schools. I shall continue to refer to those who work in Education as members of a profession in what follows, though I am aware first that what marks Education is, inter alia, disunity among the professionals, second that there are many who would not regard teaching as a profession anyway, and finally that, as I have earlier hinted, the very notion of a profession is archaic if not redundant. Whatever does bind educators and teachers at all levels together, whether we call it a profession or a specialist occupation, must in my view include:

1 a commitment to the improvement of practice
2 a commitment to the development of skill, insight and critical reflection which must be couched within a framework of theoretical understanding
3 a commitment to the development of a community sharing practical and theoretical understanding within common ideals.

What has yet to be articulated as a code of specialist or professional practice in the profession of education which properly cashes those commitments publicly. Before taking the matter further, I must refer to the form, content and status of such a code might have.

FORM

A code can combine legal, moral and conventional rules (as in the Highway Code). It is thus a code of rules, not to be slavishly followed, but as a guide to best practice in which it is constantly necessary to reinterpret the items in the code. It can be based on a wide range of sources and developed through research as well as through reflection on practice. It can and should be made accessible to the public, like the code for Advertisers published by the Advertising Standards Authority. There must be an authority to administer the code and to act as the means for redress of grievances by the public.

Within teaching institutions there is already an implicit code; it is the group-habits of the people in the institution, the occupational habits they value. These implicit codes contain norms of inter-personal behaviour and norms of behaviour for dealing with clients. Were such a collection of habits to be codified they would be radically transformed. For first a breach of the code would provide itself good grounds for public criticism and censure. Second the rules in the code would become standards, not simply coercive but useful tools for learning the ropes in an occupation. But third, particularly for Teaching, where they governed behaviour with clients (e.g. pupils) they would become part of the content of Teaching. For when I teach I act as a model of how things should be done and in that sense I am teaching what should be done to my pupils. Clearly a code can degenerate if it is not looked after; openness to public scrutiny and use and care within the occupation provides one insurance against such a fate.

CONTENT

Take an example for Teaching. In *Fifteen Thousand Hours*,[7] Rutter et al. began by identifying four features of public education which they thought the public wanted, less truancy, better behaviour, less delinquency and more public examination successes. They drew out, from their observations and statistical comparisons, a set of conclusions in which schools with 'better' results manifested particular types of behaviour, particularly among teachers. These conclusions may seem common-sense but they can be seen as an initial content for a code backed not simply by common-sense but by research. The list would read as follows:

On Classroom Practice:

1 Teachers must carefully prepare their classrooms and lessons in advance of teaching.

2 Teachers should ensure that all pupils are engaged in productive activities at all times.

3 Teachers should not make frequent disciplinary interventions directed at an individual child in class teaching.

4 Teachers should praise children's efforts and work generously, concentrating on their successes and good potential rather than on their failure and shortcomings.

5 Teachers should set and mark children's work regularly and speedily, especially where it is the product of homework.

6 Teachers should expect their pupils to succeed in examinations and manifest their expectations constantly to the pupils.

On Pastoral Care:

7 Teachers should seek, wherever possible, to give children responsibility for the care of books, papers and other school property and seek to offer children positions of responsibility.

8 Teachers should act at all times as models of interpersonal behaviour and responsibility for the school.

9 Teachers should always be available to talk with individual pupils about their problems and should take a pastoral interest in all aspects of the life of their pupils.

On the Conduct of Schools:

10 Teachers should ensure, through their contributions, that their school has a coordinated policy on curriculum and discipline and an accepted set of school norms.

11 Teachers in management positions should ensure that there are wide measures of consultation and discussion within a school and act as models of professional behaviour to other teachers.

12 Teachers should ensure that their school offers pleasant and comfortable working conditions for their pupils.

On General Teacher Behaviour:

13 Teachers must always be punctual.

14 Teachers should never use unofficial physical sanctions.

Potentially there is a much wider range of normative teacher conduct which could find itself into a code of professional practice, on the basis of a negotiated working understanding. In addition to these four areas one might add relations between teachers and school-parent relationships.

The literature on the effects of schooling makes it easier to frame the content of a code for teachers. Within Universities the extensive development of procecures since the Aston Judgement has given rise to a code which is already there and quasi-legal. What is lacking are the standards for external relationships and a much greater emphasis on internal and public evaluation as part of the duty of the institution. For code can, of course, bind an institution as much as it can bind an individual.

STATUS

The status the code has will reflect the importance it has for the profession or for the public. It must hook tightly on to reality not merely be a futurist ideal. For it to be merely advisory would be too weak; it needs some kind of legal form: and it needs to incorporate sanctions. Hart's passage on the need for sanctions in a legal system is instructive:

> Sanctions are required not as the normal motive for obedience, but as a guarantee that those who would voluntarily obey shall not be sacrificed to those who would not . . . what reason demands is voluntary cooperation within a coercive system. 8

The code could imply an extension of the notion of contract in education. In present Conditions of Service documents, contracts do not as it were get within the classroom or properly through to professional self-development. Equally disciplinary or complaints procedures for teachers within a school can be remarkably arbitrary. However a code constructed within the law might be seriously weakened because it tends to be inflexible.

The way forward seems to be as follows: first that public institutions should be obliged to produce a code of practice which its staff are expected to adhere to; that that code be constructed by the institution, perhaps on the basis of a model, certainly in wide discussion within the institution and in negotiation with its external constituencies. As this practice developed it would be possible across like institutions to see what was common and that might then provide the grounds for a full professional code produced, say, by a General Teaching Council. Certainly the privilege of a General Teaching Council should not be granted without effective professional accountability. Second, the code should contain enough details of procedures for redress of grievances, details of an authority within the institution whose job it was to ensure that the code was kept as a dynamic part of the institution's life, not a grubby typescript no one could remember where they last saw it.

To summarise:

1 Each educational institution should be required to

produce a code of best practice which is public, accessible and under which grievances should be aired.

2 "Best practice" refers to professional activity, e.g. teaching, research, or management in the terms of the commitments of the profession.

3 Existing patterns of accountability, e.g. results-based tests, should be construed as part of the code's obligations.

Without some such device to halt the flight into market-dominated, hierarchical, utilitarian patterns of education, it is difficult to see how the political support and professional trust needed can be recaptured.

III

The citizen has the right to know what professionals and public institutions are up to. He needs to know in sufficient details what is going on for his judgements and his comments to be informed. Technological progress runs far ahead of institutional progress, particularly in terms of the development of democratic institutions. Institutions in Popper's phrase need to be well-manned. Educational institutions have a major social responsibility also for the promotion of openness by drawing the public into the educational conversation. In that way people will be able to make effective contributions to discussions about the shape of their public institutions as technology brings its changes to their living framework and thus to their future.

As a more speculative finale I want to locate important implications from this notion of a code.

1 There are 3 general requirements for institutions:

a) that open internal forms of accountability replace the confidential hierarchical managerial pattern of accountability
b) that resources be deployed to promote communication with the public
c) that institutions develop more stringent internal modes of evaluation

A comment on each of these. The major development since the 60s in HE has been the significantly different pattern of government. Permanent professorial heads of department are now the exception. Universities rushed into government by committee. Tempered by that experience Universities are now adjusting to a form of management in which committees are judges of executive offers rather than executives themselves. Generally managers have their head for a defined period, but can be booted out if they make a mess of it. They report regularly; spread of information and public agrument is crucial. So far so good. Yet in terms of examinations the pattern is hierarchical still, and private; hierarchical in the sense that many Universities's external examiners reports are delivered only to heads of institutions; private in the sense that these reports are not accessible to students. Yet, as the attacks on external moderation hint, these reports are the very items of most critical concern because the degree is the University's commodity. For a code to operate, those reports would have to be public, for without it students would not have a major basic item of information to enable them to evaluate teaching.

Schools, particularly in the present context, are notoriously poor at internal accountability and the Secretary of State's comments on headteachers pick out only one aspect of the problem, i.e. managerial competence. There are many depressing and many enlightening examples

examples of open government; for every William Tyndale there is a Countesthorpe. But, if the professional code is to include teaching and management relationships within it then there must be a pattern of open government which does not entail ineffective or inefficient government.

Second, to the problem of resources and public communication. As with the Executive's reluctance to be drawn into accountability to the Legislature already mentioned, so with many schools. A Press comment in Norfolk recently suggested that schools are reluctant to 'publish their results' and are undermining the principle by publishing them in statistical form which makes them unintelligible for the purpose of enabling parents to choose between schools. That is simply grotesque if one takes seriously the need to communicate with the public. In a market-place economy all institutions will want to keep their images polished up; but we don't seem to want to take the trouble to win hearts and minds, to create a proper constituency of political support of our schools. In my experience this message comes home to teachers when, as a group, they are invited to comment on their experiences as parents (who happen to be teachers). Pari passu with the development of a code therefore we need a different stance towards our clients and our constituencies and resources devoted to careful and sophisticated information distribution.

Third, educational institutions have developed a protective stance towards departments or individuals whose performance is poor. They are presently being driven towards a managerial rather than an educational response to this problem. This code would require not merely an extensive and effective evaluation scheme - albeit non-judgmental - but equally effective evaluation systems.

This will manifestly affect authority relations within the institutions.

2 The possible changes that might develop from a code in terms of authority relations can be illustrated with an autobiographical example. In my School, our undergraduate degree is designed through principles not objectives. One of these principles is as follows:

> iv that the pedagogy of a course should be open to examination and should be expected wither to reflect the content of the course or should be capable of explicit justification.

The programme is in its early days: but I was both surprised and pleased when a student commented at the end of a seminar: "Do you realise how much your non-verbal cues are dominating the work of this group?". Professors ought to get out of bad habits they know to be inimical to good practice and to be held to account. That will change authority relations. Now individual lecturers have idiosyncratic ways of opening up the constrictions of their own authority but affording pupils or students the right within a code is critical. So, asked to engage in mindless work the child's response is to truant - an equally mindless response; where they to have the right to complain, and not to have to fight to establish that they had a right, the patterns of authority, once again, would be very different.

Authority relations would also change, second, at the managerial level. The formal position of a rule is that it applies to all who fall under it. In all kinds of educational institutions, management patterns are both formally different and individual, authoritarian, democratic or whatever. A code would enhance collegiallity. It would prise open systems and demand cooperative participation for there would be an obligation on all chiefs and all indians to examine management patterns.

Finally, a major effect would be that pupils or students would have to be induced into the use of such a code, and that would apply equally to staff. For pupils that must start at the beginning of compulsory education so that they acquire habits and attitudes to schooling which are not radically altered as they move from primary to secondary education; the development must be a coherent one for it is the underpinning of their political and civic education, since through it the educational world would demonstrate that it sees them as having defined rights within that world, and preparing them indeed for an unpredictable future.

3 Finally to relations with the external world. The context is one in which creeping privatisation is undermining state education. The formal relations of governors and managers is no doubt even-tempered across the country. But how much inroad, if any, has been made into that amazing gap between perspectives on education demonstrated by teachers and parents in Schools Enquiry I?[9] There is no doubt that three problems at least are predominant factors in the world of the schools: the cycle of educational failure, the distance of the schools from the social reality of many parents, either in class terms or in terms of backgrounds in industry or commerce, and the paradox that the educational successes of the 60s and 70s are vociferous in their demands for better opportunities for their children; and appropriately so. That highly individualistic stance towards education - picked out so elegantly by Hirsch[10] - runs alongside an apparent anti-intellectualism in contemporary society, as suggested by Perkin.[11] Indeed many of the new

brutalist politicians, from right and left, make either too strong demands on the schools or are themselves the self-made men and women for whom education was, as it has been for the majority of the population, a failure. And if consensus politics has broken down, we can anticipate bewildering changes in the shape and style of schools as parties change. (Compare ILEA's present policies in secondary education with those of any rural county.)

A code would provide some stability in the context of political change - or at least a marker for standards of conduct and behaviour. In the context of competitive schools and public comment, there would be clear obligations within a code for open discussion at PTA or public meetings, say of HMI reports. (The Great Debate tragedy is that it was not local and was a one-off.) A code, it has been suggested, provides guidance for the volunteer unpaid or paid assistant as initiate; Unions ought to revise their attitudes towards both voluntary and unqualified labour. Class size[12] is critical; individual attention is critical for children.[13] That cannot be provided and education cannot continue to ignore children's interests in the interests of professional status. For that injection of community assistance into schools a code would provide a guide. A code should also create, as I have reiterated, the opportunity for a conversation. For many local politicians, as public representatives, that is a difficult task especially if their own educational experience has not been a happy or significant one.

Finally local politicians would provide a useful test of the accessibility of research findings. For it is not simply anti-intellectualism to complain about the funding of obscure research proposals; at least it is to argue that the money might be better spent. Perhaps a useful criterion for a good research proposal is that it contain a column which could be inserted in the local newspaper and be intelligible, in the editor's view, to the local politicians. The point here is not that we have to accept relatively immature judgements as the only valid ones on educational practices. We have the obligation to ensure that our practice is much more widely understood and accepted; and thereby valued as an influence on those judgements. Universities do not seem to have got quite that kind of acceptance, perhaps because of the contrast with the government of their neighbours across the binary line.

IV

To conclude. A code is not a panacea, and that is what the public and the politicians want, preferably next year, but at any rate before the next election. We fall frequently into the trap of saying that we know what the public ought to want and then complain when they manifestly don't. We have a vague belief that education is publicly owned and that it has value in a community. Yet we try to keep it out of the public light and let the community in only on our own terms, a classic case of professional self-defence. I don't much mind if the code notion gets no further than this paper: I am certain that the issues it raises are critical for the future of education. In the end, we can only hope to perform to the standards of best practice; we cannot guarantee results.

REFERENCES

1 Stonier, T. Changes in Western Society: Educational Implications in Schuller T. and Megarry J. (eds.) *Recurrent Education and Lifelong Learning*. (London: Kogan Page) pp. 31-44.

2 Sockett, H. T. Towards a Professional Code in Teaching in Gordon Peter et al., *Is Teaching a Profession*? Bedford Way Papers University of London, 1983.

3 Macdonald, B. Hard Times: Educational Accountability in England. *Educational Analysis*, Volume 1, No. 1, 1979.

4 Michael, James. *The Politics of Secrecy*. (Harmondsworth : Penguin Books, 1984).

5 Dunn John *Western Political Theory in the face of of the Future* (Cambridge : C.U.P., 1980).

6 Kogan, M.: The Impact and Policy Implications of Monitoring Procedures in Becher, A and McClure, S. (eds) *Accountability in Education* NFER 1980.

7 Rutter, M. et al., *Fifteen Thousand Hours* (London : Open Books, 1978).

8 Hart, H. L. A. *The Concept of Law*. (Oxford : (O.U.P.) Chapter 9.

9 *Schools Enquiry I* HMSO 1968 see Chapter 2.

10 Hirsch, F. *The Social Limits to Growth* (London : R.K.P., 1977).

11 Perkin, H. The Teaching Profession and the Game of Life, in Gordon Peter et al., op. cit.

12 See, for example, Rex Gibson's review of the work of Gene Glass' work at the Far Western Laboratory in *Journal of Curriculum Studies* Volume 12, No. 3, 1980, pp. 271-2.

13 See, for example, Kellmer-Pringle, Mia : *Investment in Education* The Hugh Greenwood Lecture at the University of Exeter, 1982.

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CURRICULUM AND POLICY IN IRISH POST-PRIMARY EDUCATION

B. O'Reilly

I propose first to outline my reading of Professor Mulcahy's book Curriculum and Policy in Irish Post-Primary Education.[1] Secondly, I propose to make some observations on Professor Mulcahy's study and I will attempt to make these on two levels. In the first instance, I wish to make some remarks on the general assumptions and mode of procedure of the study and to attempt to place it in the context of the development of curriculum studies and approaches to curricular issues. Then I propose to make some observation on the details of both the analysis and proposals contained in the study.

Despite the comments of earlier reviewers,[2] it is my opinion that the study is very tightly structured and very tightly argued. The Introduction identifies the mode and the object of the analysis. The object of the analysis is to be "the aims and philosophy, curriculum content and pedagogy", as well as the historical background of Post-Primary education in Ireland.[3] The mode of analysis "might be described broadly as employing philosophy, history and literary criticism as modes of analysis and discussion".[4] The use of quantitative or empirical methods is deliberately eschewed as not "suited to a consideration of conceptual issues and issues of principle affecting curriculum".[5] This appears to be an unnecessary limitation in the study, particularly when considerable statistical information was available from the Department of Education Annual Reports[6] - and from studies carried out by Raven et al., on the attitudes of teachers and pupils,[7] Madaus, Fontes, Kellaghan and others[8] on the opinions of the public. It ought to be

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noted that the object of the study does not include "classroom activity". "Pedagogy', in the study, is equated with an analysis of the organisational structures of curriculum and of the examination system.[9] In this Professor Mulcahy appears to echo the ideas of Bernstein on the "classification" and "framing" of knowledge in the curriculum,[10] and to lay himself open to the same charge as is put to Bernstein - that insufficient field work is cited to support views presented. The kind and the quality of the interactions which occur in Irish classrooms, the curriculum as actualised, is not examined. No doubt the reason for this omission is that very little research has been done on classroom interactions in Irish schools.[11] It may be generally held that "the dominant work ethic of the Irish school is examination success and not preparation for life"[12] but only a closer look at what is actually going on in schools would substantiate that view.

In the introduction also, Professor Mulcahy identifies the assumptions on which he operates and outlines the core of his argument. This argument is developed in Ch. 3 and I wish now to examine these assumptions and this core argument.

The first identifies assumption related to the nature and function of education and the curriculum.

> Education is a means-end in which various measures are taken by educational authorities which are appropriate to the attainment of sought after goals or aims.[13]
>
> Curriculum is seen as the means to achieve the ends in view [14] (emphasis mine).

The second assumption arises from the first and relates to the process of evaluation which is described as being in two 'stages':

i) the clarification of the aims of education and

ii) an examination of the extent to which the curriculum of post-primary education in Ireland is suited to achieving these aims.[15]

It is indeed refreshing to see assumptions so clearly stated - a rare enough occurrence in education studies. However, the extent to which such assumptions serve to limit the perspective of the study is not explored, and as we shall see in a moment, neither are the alternative possible viewpoints taken seriously. This becomes clear if we reduce the central argument to what I think are its core elements.

1 The major aim of post/primary education in Ireland has been to provide a general education.

2 To provide a general education is to prepare pupils for life.

3 Preparation for life entails preparation of pupils to cope with a number of major demands of living.

4 The demands of living may be identified in four major areas :

  Vocational demands
  Practical demands
  Recreational demands
  Philosophical demands

5 The Demands of Living and not Subjects nor Academic Disciplines are to be the organising principles of the curriculum.

6 In the light of Nos. 1 - 5 above, the curriculum for Irish post-primary schools is inadequate because (a) there are no clearly stated aims for it and (b) it does not prepare pupils for life in the sense of meeting the four major demands of living.

7 A re-organisation of the curriculum and its system

of assessment is required and a model for such a re-organisation is presented in the final chapter. The intellectual ancestry of these ideas is acknowledged by Professor Mulcahy to be in a line via Smith, Stanley and Shores (1957) and Ralph Tyler (1949), via Franklin Bobbitt (1927) to Herbert Spencer (1861). In deference to the Chairman (Dr. Harris, Department of Education), it ought to be pointed out that in the view of one eminent historian of curriculum making in the United States "the story begins in earnest with the efforts of William Torrey Harris, superintendant of the St. Louis School during the 1870s".[16] The story in question has been given a variety of names: "the bureaucratic model for curriculum design",[17] "the cult of efficiency",[18] the Tyler model,[19] or simply, the "rational approach to curriculum planning". This story is in essence the story of the application of the principles of "scientific management" to the tasks of schooling. Under the influence of Fredrich W. Taylor, Bobbitt and others took to speaking of the school as of a "manufacturing establishment". As one contemporary of Bobbitt put it:

> Our schools are, in a sense, factories in which the raw products (children) are to be shaped and fashioned into products to meet the various demands of life 20 (emphasis mine).

To quote Bobbitt:

> Education is primarily for adult life, not for child life. Its fundamental responsibility is to prepare for fifty years of adulthood, not for the twenty years of childhood and youth. 21

This has been the dominant tradition in curriculum studies this century. But it is not the only one. John Dewey was giving voice to an alternative tradition, one with its roots in the Aristotelian distinction between "Phronesis" and "Techne" when he said:

> . . . ends arise and function within action. They are not, as current theories too often imply, things lying beyond activity at which the latter is directed. They are not strictly speaking ends or termini of action at all. They are terminals of deliberation, and so turning points in activity. 22

A recent essay by Paul Hirst,[23] as well as work by David Hamilton,[24] and . Barton and Lawn[25] suggest that the alternative tradition is alive and well on this side of the Atlantic. Indeed it is ironic that in 1926 Franklin Bobbitt should have come round to the view that:

> Education is not primarily to prepare for life at some future time. Quite the reverse: it proposes to hold high the current living, making it intense, abundant, fruitful and fitting it firmly in the grooves of habit . . . In a 'very true sense, life cannot be 'prepared for'. It can only be lived.[26]

I raise these points not to tar Professor Mulcahy with the worst excesses of the 'cult of efficiency' school, nor even to argue for the validity of the alternative tradition but to place Professor Mulcahy's assumptions and line of thought in the context of ongoing debates in curriculum theory. This alternative tradition expresses serious reservations about the means/end view of the curriculum and is also critical of the "needs-based" curriculum. Professor Mulcahy does debate the view of that traditionalist school, represented by Hutchins (1936) and Peters (1966) which argues for the 'nature and structure of knowledge', that is subject and disciplines, as the basis for curriculum design,[27] but he rejects this view because: "in it, considerations of logical tidiness rather than relevance are uppermost".[28]

Going on to say:

> Surely the question of whether a school is providing a general education understood as a preparation for life is to be decided not so much by the subjects on offer but by whether in fact the pupils acquire the knowledge, attitudes and skills which actually constitute a preparation for life. 29

On this line of argument I make two points. Firstly that the "logical tidiness" of subjects or disciplines does help ensure a kind of relevance, a relevance that is rooted in the universal desire to know, and a relevance which has been, and can continue to be called upon in the process of motivating learning in the classroom. Secondly, in the light of the discipline or subject basic academic background of all entrants to the post-primary teaching profession it is unrealistic to expect a 'needs-based curriculum' to be implemented except as mediated by disciplines or subjects. This point appears to have been accepted by Professor Mulcahy as his model curriculum retains many of the subjects in just such a role.

I move now to make some observations on the details of Professor Mulcahy's analysis and his proposals.

In Chapter 2 the development of curricular provision in both the Secondary and Vocational systems is outlined and there is review of the reforms in post-primary curricular provision from the mid 60s to the late 70s, a report thorough in its identification of the influences operating and purposes declared. The major purposes of that phase of reform are identified by Professor Mulcahy as a) the widening of the range of subjects, - i.e. the introduction of a more comprehensive curriculum and b) increasing the participation levels in technical subjects. The uncoordinated quality of the present curriculum is correctly identified as arising from the mistaken view that an integrated comprehensive curriculum could be achieved by the "sum of the practical subjects in the Vocational School and the academic subjects in the Secondary school. With regard to participation in technical subjects Professor Mulcahy reports that the aspiration towards greater participation in these subjects was not fulfilled and suggests that this failure is "less attributable to the Department of Education than to social and parental attitudes" on the one hand and to institutions of third level education, on the other.[30]

This almost throwaway remark prompts me to observe that in general throughout this study there is little obvious impact of work in the area of the sociology of the curriculum. I think of Bourdieu (1977) Reproduction : In Education, Society and Culture, Apple (1979) Ideology and Curriculum or Paul Willis (1977) Learning to Labour : How Working Class kids get working class jobs. Kathleen Lynch's 1982 ESAI paper, "A Sociological Analysis of the Functions of Second-Level Schooling", is a recent example of Irish work with this perspective.[31] Such a perspective I suggest throws a radically different light on the role of the Vocational sector and the "practical subjects" in Irish postprimary curriculum, by attempting to delineate how various groups and interests in society interact with the educational structures and the curriculum.

The inadequcies of the present curriculum are very cogently presented in Chapter 4 and Chapter 5. The first deals with the content of the curriculum and draws together the criticisms expressed particularly about the adequacy of the curriculum as a preparation for the world of work, and for what are termed the 'practical demands of living'. Under the heading of 'Pedagogy of the

Curriculum", Chapter 5 exposes with clarity the influences of, and the difficulties arising from, (a) current examination procedures, (b) the relationships between Post-Primary and the other levels of education particularly third level, and (c) the influences and difficulties that arise from the centralised nature of curriculum decision making about the curriculum.

Finally, a word about Professor Mulcahy's reform proposals. These are designed to:

a) organise the curriculum on the basis of the four major areas of pupils needs
    Vocational needs
    Philosophical needs
    Recreational needs
    Philosophical needs

b) to provide such flexibility as to allow for the range of individual differences in post-primary school and

c) to provide a broad educational experience for all pupils. The structures of the curriculum, that is the length of course units, the assessment and certification procedures, must all be adjusted to this end. Model proposals to meet these requirements are presented by Professor Mulcahy but I don't propose to discuss the detail of these. Sufficient to say that their feasibility is dependent, in Professor Mulcahy's view on schools being large enough (800 pupils minimum) to provide the curricular range in a cost effective manner.

That less than 3% of our schools are of the required size does not, in my view, invalidate the proposals but means that the model as presented requires modification to meet the current circumstances of our schools.

Professor Mulcahy identifies another problematic condition for the implementation of the proposals he outlines, saying:

> it would be essential to have a greatly expanded inspectorate, one which would be devoted to the work of curriculum planning and development. 32

In the context of recent events this suggests to me that the bulk of the Inspectorate would transfer to the employ of the Curriculum and Examinations Board, in its forthcoming statutary manifestation, rather than play their own game from the sideline of the Department of Education.

Talk of the Curriculum and Examinations Board leads me to recall that in 1981 I thought Professor Mulcahy's book a little unfortunate in its timing. Economic recession did not seem to be the likely time to launch major curriculum reform initiatives. But thankfully, serious curriculum reform seems to be underway. So the time was right for a major study of the Irish curriculum. For the first systematic application of curriculum theory to Irish post-primary education, for a coherent alternative to the current provision with which teachers, pupils, parents, and employers are all dissatisfied, we thank you, Professor Mulcahy.

REFERENCES

1 Mulcahy, D. G. Curriculum and Policy in Irish Post-Primary Education (Dublin I.P.A., 1981).

2 See review by Christina Murphy : Irish Times April 3rd, 1982.

3 Mulcahy, D. G. Curriculum and Policy p. 4.

4 Ibid., p. 4.

5 Ibid., p. 5.

6 Some information from 1979. Department of Education. Tuarascail Statistiuil is used on pp. 40, 41, 42 and 116.

7 Raven, J., Handy, R., Benson, C., Hannon, B. and Henry, E. A Survey of attitudes of post-primary teachers and pupils. (Dublin : Irish Association for Curriculum Development, 1975).

8 Maudaus, G. F., Fontes, P., Kellaghan, T., Airasian, P. W. Opinions of the Irish public on the goals and adequacy of education. Irish Journal of Education, 1979, 13, 87-125.

Additional relevant material of a quantitative kind has become available since the publication of Professor Mulcahy's study, e.g. Kellaghan et al., "Opinions of the Irish public on innovations in education", Irish Journal of Education 1981, 15, 23-40; Hannon et al., Schooling and Sex Roles, Dublin ESRI Paper No. 113, 1983.

9 Mulcahy, p. 132; also pp. 144-149.

10 See Bernstein, B., Class, Codes and Control (London _ RKP, 1975) Ch. 4 "On the Curriculum" and Ch. 5. "On the Classification and Framing of Educational Knowledge.

11 To my knowledge the only full length study on classroom interaction in Irish Schools is in O'hEigeartaigh, S. The Analysis of Classroom Practice unpublished Ph.D. Thesis U.C.D. 1975. Hannon (1983) School and Sex Roles cf pp. 36-43 reports on pupil perspectives of classroom interactions.

12 See Mulcahy (1981) Curriculum and Policy, p. 155 ff.

13 Ibid., p. 5.

14 Ibid., p. 6.

15 Ibid., pp. 5-6.

16 See Cremin, L. A. "Curriculum Making in the United States" p. 20 in Pinar, W. ed. Curriculum Theorising : The Reconceptualists (Berkeley; McCutchan Publishing Corp., 1975).

17 See Kliebard, H. M., "Bureaucracy and Curriculum Theory" p. 57, in Pinar, W. (ed.) 1975 Curriculum Theorising.

18 See Cahalan, R. E. Education and the Cult of Efficiency (Chicago : University of Chicago Press, 1962).

19 See Tyler, R. W. Basic Principles of Curriculum and Instruction (Chicago : University of Chicago Press 1949).

20 Cubberley (1916) "Public Administration", quoted in Kliebard, H. M. Bureaucracy and Curriculum (1975) which gives an account of the influence of the bureaucratic ideals of Taylor's Principles of Scientific Management (1911) on curriculum planning.

21 Bobbitt, F. (1926) "The Orientation of the Curriculum Maker" in The Foundations of Curriculum Making : quoted in Pinar 1975 (ed.) Curriculum Theorising.

22 From Dewey J. 1922. Human Nature and Conduct p. 223 and 223 quoted in Kliebard (1975) Persistent Curriculum Issues in Pinar, W. (ed.) op. cit.

23 See Hirst, P. H. (ed.) Education Theory (London : RKP, 1983).

24 Hamilton, D. Beyond the Numbers Game (London : MacMillan, 1977.

25 See essays in Barton and Lawn (eds.) Rethinking Curriculum Studies: (London, Croom Helm, 1981).

26 Quoted in Kliebard (1975) Bureaucracy and Curriculum Theory p. 63.

27 Hutchins, R. M. The Higher Learning in America (New Haven : Yale University Press, 1936) and Peters, R. S. Ethics and Education (London : George Allen & Unwin Ltd., 1966).

28 Mulcahy, p. 82.

29 Ibid., p. 45.

30 Ibid., pp. 43-44.

31 Bourdieu, P. and Passeron, J. C. Reproduction in Education, Society and Culture (London : Sage Publications, 1977).
Apple, M. Ideology and Curriculum, London : R.K.P., 1979).
Willis, P. Learning to Labour : How Working Class Kids get Working Class Jobs (Hants : Saxon House, 1977).
Lynch, K. "A sociological Analysis of the functions of Second Level Schooling"in Coolahan, J. (ed.) Irish Educational Studies 1982, Vol. 11, pp. 32-55.

32 Mulcahy, (1981) p. 197.

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A RESPONSE TO BARNEY O'REILLY ON CURRICULUM AND POLICY IN IRISH POST-PRIMARY EDUCATION

D. G. Mulcahy*

It is always gratifying to find that somebody can make sense out of what you are saying, or in this case writing. And my first reaction to Barney O'Reilly's paper is that despite reservations which he has expressed about some aspects of Curriculum and Policy in Irish Post-Primary Education he has not been deflected from the main thrust of the work. Thus I have no difficulty in going along with his summary of my position. I shall even go so far as to say that I can see why he might have the reservations which he has expressed, though I am not prepared to concede that his reservations are well founded or that his points of criticism are proven. Since O'Reilly has summarized the jist of the argument of the book I shall not do so here. Instead I propose to consider the various points which have been raised by way of taking issue with me. I shall leave it to others to take issue with O'Reilly on those points where he is in agreement with me.

1 Modes of Inquiry

The reservations expressed by O'Reilly are concerned largely with the scope and the suitability of my method of inquiry rather than with the content of my analysis, the content of my critique or the content of my proposals for reform. Thus having drawn attention to the fact that I said my mode of analysis might be broadly described as drawing on philosophy, history and literary criticism he goes on to suggest that I had eschewed quantitative or empirical modes of enquiry. This is only partly true, and O'Reilly misrepresents me on the point.[1]

(What I said is that philosophical, historical and literary criticism modes were suited to a consideration of conceptual issues and issues of principle affecting curriculum. I did not say, as O'Reilly claims, that the other mode was not suited.[2]) O'Reilly continues that my alleged eschewing of this latter mode of enquiry "appears to be an unnecessary limitation in the study, particularly when considerable statistical information was available . . .".[3] The fact, of course, is that I did employ statistical information which was available where it was helpful to use it.[4] And one of the studies referred to by O'Reilly, if my memory serves me correctly, was not actually published until after I had completed my work, though he may be excused for not knowing this because of the dating on the article in question.[5]

But whether the information in question was available, and whether I made use of it or not, is not the central point. The question is whether it would be a limitation in the study if I had not made use of it. O'Reilly does not spell out clearly in what way such an omission might be a limitation in the study. So it is difficult to respond in concrete terms. What I would say in the circumstances, then, is that the information in question would appear to have no bearing on the issue. It has no bearing on the issue in the same sense that the fact that no more than about 100 boys study music at Leaving Certificate level has no bearing on whether, for educational reasons, music should be available to boys at Leaving Certificate level. This is an issue of principle affecting the curriculum and the numbers of students taking the subject is not a relevant consideration, in itself, in adjudicating that question. Now I am not saying that statistical information may not have been of interest and even of value in some ways. But it was

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not essential to the main purpose my my inquiry. For this reason I made little use of it.

2 The Means-ends Model

The second of O'Reilly's reservations concerns my view of education as a means-ends activity, a view which underlies the approach to my critique and evaluation of the curriculum. As he points out I saw the evaluation as being in two stages, namely, in stage one I was concerned to establish what were the aims of post-primary education in Ireland, and in stage two I sought to examine how suited the existing curriculum was to the attainment of the aims in question. Having drawn attention to this, however, O'Reilly goes on to suggest that while it is refreshing to see assumptions stated "the extent to which such assumptions serve to limit the perspective of the study is not explored".[6] Again, however, O'Reilly fails to show how he sees the study as being limited, and so it is difficult for me to respond to what he may have in mind.

What I can say in response is to explain why I did attempt to set forth the assumptions of the study. I did so in order that the reader would know upon what assumptions the critique was being based and in order that the reader could judge for himself or herself how well founded or otherwise the resulting critique may be. I did not wish to dwell on methodological issues, however, because this was not the main focus of the study. I was more concerned with holding up post-primary education in Ireland to analysis and critique - analysis and critique based on some defensible assumptions and a rational mode of inquiry - rather than with a consideration of methodological issues.

To say this, however, is not to say that my assumptions ought not to be the subject of debate, so I shall pursue the matter somewhat further here. When O'Reilly draws attention to the means-ends view of education which I adopt he goes on to say that alternative possible viewpoints are not taken seriously.[7] What he considers to be the alternative viewpoints is unclear, however, for when he goes on to talk of alternative viewpoints he is talking about the position of such writers as Hutchins and R. S. Peters on the topic - not of means-ends - but of the "needs-based curriculum".[8] I am not sure I see the connection which O'Reilly makes between these two topics, though given the account which O'Reilly gives of the development of the 'efficiency' approach to curriculum development in the United States the implication seems to be that my stance is associated with a very mechanistic or behavioural concept of education. Accordingly I am not sure if I am addressing the issue which O'Reilly had in mind.

What I wrote in Curriculum and Policy in Irish Post-Primary Education on this subject was as follows:

> Basic to the evaluation of curriculum carried out here is the notion of education as a means-ends activity in which various measures are taken by educational authorities which are considered appropriate to the attainment of sought-after goals or ends. 9

A little later I continued:

> The general view of the relationship between aims in education and the curriculum which is envisaged here is broadly as follows. Aims specify the ends or kinds of development in pupils which are to be sought. Curriculum, in its broadest sense, is seen as the means to promote this development, to achieve the ends or values in view. 10

O'Reilly has some difficulty with these views, though it should be pointed out that R. S. Peters whom O'Reilly seems to take as a representative of one of the alternative views which he says I do not take seriously, along with Paul Hirst, is happy with the means-ends view of education and with the idea of curriculum as a means of attaining educational objectives. I quote from the Logic of Education:

> Once granted a set of desired objectives, diverse in their character and complex in their interrelations, the business of curriculum planning becomes the organization of the best means to achieve these ends . . . The means/ends model brings out well that, logically, the objectives must be determined before all else . . . 11

Now I am aware that Hirst and Peters are careful to qualify their adoption of the means-end model and that many writers on curriculum development have objected to the Tyler rationale which also adopts it - the so-called objectives model of curriculum development. But then I do not consider the objectors to the Tyler rationale to be entirely convincing myself. In particular they appear to me to fail to distinguish sufficiently between the use of the model as a basis for curriculum development and its use as a basis for evaluation of curriculum. I do take the point that the objectives model may be inadequate on its own as a basis for curriculum development. But how anyone can fail to accept that any curriculum must be justified by reference to some set of (justifying) aims, ends-in-view, or objectives is simply beyond my comprehension. And this is essentially the point I was making when I wrote that "curriculum, in its broadest sense, is seen as the means to promote . . . development (in pupils), to achieve the ends or values in view. Accordingly, it is necessary that there be a fundamental consistency between the aims posited and the curriculum or the means employed".[12] I was also indicating that I would be relying upon this means-ends view of education when I came to ask how justifiable (and suitable) the curriculum of post-primary education in Ireland was from the point of view of promoting the aims or objectives which were ascribed to it. And I cannot see how my position can be said to not take seriously the views of writers like R. S. Peters or Paul Hirst!

3 The Needs-based Curriculum

The third point to which I wish to respond here is the question of what O'Reilly refers to as the "needs-based curriculum". While O'Reilly claims that he does not wish to tar me with the worst excesses of the cult of efficiency movement in curriculum theory and development which was in the ascendant in the United States during the early decades of the century, nonetheless, he readily locates my work in that tradition. By association if not by implication, then, I am to be accused of holding such views as this that "our schools are, in a sense, factories in which the raw products (children) are to be shaped and fashioned into products to meet the various demands of life",[13] or again that "education is primarily for adult life, not for child life. Its fundamental responsibility is to prepare for fifty years of adulthood, not for twenty years of childhood and youth".[14]

It is excesses of the kind reflected in these quotations that did much to discredit the approach to viewing the foundations of curriculum in terms of the various activities or demands of everyday living. Yet this is hardly a fair or reasonable basis for assessing such an approach to curriculum development or evaluation. And I for one would not wish to subscribe to the view of schools as factories or children as raw materials. Unlike Bobbit, moreover, I do not subscribe to the view that education is concerned primarily with preparation for adulthood rather than childhood, a point which I made in Curriculum and Policy in Irish Post-Primary Education.[15] Talk of preparing children for life or for being prepared to meet the demands of living does not necessarily imply an exclusively future-oriented concept of education. There are present-day demands of living, and notably the particular strains and demands of adolescence, for which preparation is desirable also.

These preliminaries aside, however, there are some fundamental issues to which O'Reilly has drawn attention and I wish to consider these now. In the first place it must be pointed out that, whether I agree with it or not, the notion of the purpose of general education as being one of preparation for life is the position which, I have suggested, is taken in the official stance which has been taken in this country regarding the aim or purpose of secondary education.[16] What I attempted to do was to draw out the meaning of that idea, and it is in this context that I suggested that the question of whether somebody is prepared for life or not may best be decided not on the basis of subjects on the curriculum but on the basis of knowledge, skills and attitudes which actually constitute a preparation for life. The Council of Education had suggested that "in practice" general education consists in the study of various subjects, namely, "religious and/or moral instruction; command of the native language in speech, writing, literature; a reasonable outline of history and geography; elementary mathematics; drawing, singing and some initiation into science".[17] That being the case I suggested that it may be more fruitful to pursue an approach to designing the curriculum which was rooted in a view or a theory of the various demands of living and what they suggested would be desirable as a preparation for life rather than upon a theory of the nature and structure of knowledge "in which considerations of logical tidiness rather than relevance for living may be uppermost".[18]

The approach to basing the curriculum on a theory of the nature and structure of knowledge, and of knowing, rests on the belief that the disciplines of knowledge do, in fact, enable us to understand the world in which we live and to develop the intellectual skills necessary to enable us to achieve such understanding. There is also the belief that they enable us to cope with and master the various situations which we encounter in our daily living. Despite this belief, and the related approach to drawing up the curriculum of general education, there are also many situations in life, however, for which the disciplines provide an adequate or less than complete preparation, situations for dealing with which it would appear they need to be supplemented. These points have been acknowledged to varying degrees by Cardinal Newman, by Hirst and Peters, and more recently by Mortimer Adler, all of whom have strong sympathies with the idea of discipline-based curriculumn.[19] Thus, for example, the skills and attitudes embraced by the disciplines, skills and attitudes of calm, methodical, detached inquiry and reflection, are not always the skills and attitudes best suited to dealing with life situations - they need to be supplemented. There are many situations in life in which discipline knowledge and skill are simply not up to coping with the practical demands of the situation - such as judging the applicability of what we know to a given situation. Again the disciplines need to be supplemented. Finally many of the most persistent criticisms of schooling are that it is at a remove from life. Children may come to be proficient in the disciplines but may know little of how to cope with the mass media, a consumer society and the demands of living with others.

In Curriculum and Policy in Irish Post-Primary Education, of course, I laid considerable emphasis on the importance of the disciplines in the curriculum, seeing them as having an important place to play in general education, a point which O'Reilly does recognize. This, however, did not prevent me from arguing for a place for non-discipline studies as well. In fact, the question, as I saw it, became whether the non-discipline requirements of a preparation for life (and what they might be) can be given a higher profile than is traditionally the case, without at the same time denying the rightful contribution of the disciplines. It was because, as I saw it, it held out some promise of accommodating both of these considerations that I opted for what O'Reilly describes as a "needs-based curriculum". One of the needs to be recognized, I believe, is the individual person's need to know and to enjoy knowledge. Another is the need to be able to use it and see and appreciate its uses, a view rejected in theories of liberal education.

Beyond indicating that a number of writers have difficulty with the so-called needs-based curriculum, O'Reilly does not show in what respects my study is limited by the position which I have adopted and, as I have said, I am not sure if I have responded to what he had in mind. There is, however, one further aspect of what he has to say on this topic and I shall respond briefly to this here.

The disciplines, O'Reilly suggests, do "help ensure a kind of relevance, a relevance that is rooted in the universal desire to know, and a relevance which has been, and can continue to be called upon in the process of motivating learning in the classroom".[20] This may well be the case, and if it is then I feel happy about the place which I allot to the disciplines in my own curriculum proposals. But I would not consider the disciplines to have a monopoly in this regard. There is much in non-discipline studies and practical activities that will strike a chord in the experience of pupils, which will have a relevance, which will ensure unique avenues to further experience and knowledge, and which may also have a distinctive motivational character. And it may be through such studies that the deficiencies in learning based exclusively upon the academic disciplines may be overcome. This too is a point recognized by Broudy, Smith and Burnett in their inclusion of a study of molar problems in the curriculum,[21] by Hirst and Peters in their recognition of the desirability of a place for practical education in the curriculum,[22] and more recently by Mortimer Adler in his inclusion of the auxiliary studies over and above the more traditional academic disciplines in the curriculum.[23]

O'Reilly's related point that " in the light of the discipline or subject-based academic background of all entrants to the post-primary teaching profession it is unrealistic to expect a 'needs-based curriculum' to be implemented except as mediated by disciplines or subjects",[24] raises questions of a different kind and I shall not pursue them at this stage. Suffice it to say for now that while existing arrangements in the matter of teacher preparation as, indeed in such other areas as the size of schools, may pose practical obstacles to the implementation of my proposals for curriculum reform, and while any proposal for implementing curriculum reform would have to take account of them, in themselves they do not constitute an objection to the ideal elements in the position I have adopted.

4 Sociology of the Curriculum

I come, fourthly to the final issue which I wish to take up in what O'Reilly has to say. This is his reference that "in general throughout this study there is little obvious impact of work in the area of the sociology of the curriculum".[25] I agree that there may be little obvious impact, but I am more concerned with whether I have taken due cognizance of whatever significance this work may have for what I have had to say regarding the curriculum of post-primary education in Ireland. Now as I understand it the main implications of this work for the curriculum is that curriculum knowledge reflects only the knowledge interests of controlling groups in society. But it is argued that this should not be so and that the knowledge interests of all people ought to be reflected in the curriculum. If this is so, of course, it reflects a particular value stance, one which favours the adoption of egalitarian principles. It may not have been for this reason (and this does not mean that I accept or reject such principles) but I would have thought that because of my emphasis on broadening the range of curriculum knowledge beyond the scope of the traditional curriculum of a liberal education, and indeed beyond that advocated by economic or vocational interests in the community, and in particular because of my emphasis upon providing for individual differences among pupils, that in the final analysis my curriculum stance would have accommodated trends in the sociology of curriculum to which O'Reilly is referring. It is true that I may not have pursued the implications into the realms of the politics of curriculum reform, where the implications of these trends may have called for more explicit attention, but then that was not the focus of my attention at any time.

5 Conclusion

In what I have had to say in response to O'Reilly's paper I have tried to stay as close as possible to the issues which he raised. I hope, moreover, that I did not overlook any issue of major importance. If I have I am sure that Barney will let me know.

REFERENCES

1 B. O'Reilly "Curriculum and Policy on Irish Post-Primary Education". Irish Educational Studies 4, 1 (1984) : 21.

2 D. G. Mulcahy, Curriculum and Policy in Irish Post-Primary Education (Dublin : The Institute of Public Administration, 1981), pp. 4-5.

3 O'Reilly, op. cit., p. 21.

4 See, for example, Mulcahy, Curriculum and Policy in Irish Post-Primary Education, pp. 33-45.

5 G. F. Madaus, P. J. Fontes, T. Kellaghan and P. W. Airasian, "Opinions of the Irish Public on the Goals and Adequacy of Education", The Irish Journal of Education, 13, (1979) : 87-125.

6 O'Reilly, op. cit., p. 23.

7 Ibid.

8 Ibid., p. 25.

9 Mulcahy, Curriculum and Policy in Irish Post-Primary Education, p. 5.

10 Ibid., p. 6.

11 P. H. Hirst and R. S. Peters, The Logic of Education (London : Routledge and Kegan Paul, 1976), p. 68. See also P. H. Hirst, "The Contribution of Philosophy to the Study of the Curriculum", in John F. Kerr, ed., Changing the Curriculum (London : University of London Press Ltd., 1968), pp. 39-62.

12 Mulcahy, Curriculum and Policy in Irish Post-Primary Education, p. 6.

13 O'Reilly, op. cit. p. 24.

14 Ibid.

15 Mulcahy, Curriculum and Policy in Irish Post-Primary Education, pp. 86, 191.

16 Ibid., pp. 51-72.

17 Report of the Council of Education : The Curriculum of the Secondary School (Dublin : The Stationery Office, 1960), p. 92.

18 Mulcahy, Curriculum and Policy in Irish Post-Primary Education, p. 82.

19 John Henry Newman, The Idea of a University, ed. I. T. Ker (Oxford : The Clarendon Press, 1976); Hirst and Peters, The Logic of Education; and Mortimer Adler, The Paideia Proposal : An Educational Manifesto (New York : Macmillan Publishing Co. Inc., 1982).

20 O'Reilly, op. cit., p. 26.

21 Harry S. Broudy, B. Othanel Smith and Joe R. Burnett, Democracy and Excellence in American Secondary Education (Chicago : Rand McNally, 1964), p. 247.

22 Hirst and Peters, The Logic of Education, p. 72.

23 Adler, The Paideia Proposal, p. 33.

24 O'Reilly, op. cit., p. 26.

25 Ibid., p. 27.

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CONSTRUCTING AND TESTING A GEOGRAPHY TRAIL

Kevin Hurley

The trail to be described here is concerned with the exploration of a particular place. It was designed to provide opportunities, at a limited number of locations, for insights into the spatial character, the infrastructure governing movement and the cultural landscape of the place in question. It is a geography trail.

As such it is unusual, if rather ironically so. Where the trail approach has been adopted by schools - and here I'm referring to the U.K. ; it has been employed in the main to explore the natural environment.[1] In Northern Ireland a vigorous offshoot has arisen in the form of History Trails.[2] Meanwhile geography appears to have remained in the wings, insufficiently emboldened to explore or embrace the approach.

Perhaps then, following upon the inauguration of the trail approach in the Republic,[3] it is timely to suggest that the themes and skills which are peculiar to geography can be creatively wedded to this process and that geography can be the richer for it. Indeed the aspirations of the recommended programme for the teaching of geography in primary schools[4] would also appear to demand an examination of this technique as enabling the fulfilment of its aspirations for local geography viz.

> Studies of the pupil's own neighbourhood should provide the starting point and foundation for the study of geography in the primary school. Pupils should not be confined to the classroom and full use should be made of their natural curiosity and of their urge to explore out-of-doors.

and again

> The child should be encouraged to investigate his own neighbourhood as this will serve to give fuller meaning to his discoveries about unfamiliar places. Understanding the geography of his own locality demands that the child engage in out-of-door observation and investigation. . . . and, in general, the approach will be one of exploration.

The trail has to be seen in the context of traditional approaches to local geography and to fieldwork in primary schools in the Republic. The little evidence there is enables it to be reviewed here, although summarily:

(i) In 1969, prior to the introduction of the current curriculum, Michael Dillon engaged in a substantial questionnaire survey to investigate aspects of the teaching of geography in national schools. He found that whereas " . . . geography teaching tended to follow the concentric approach, the base in the local area was generally weak". This was further compounded by the fact that "Fieldwork was included in the programme of less than one-quarter of classes in each standard; organised outings beyond the school locality were twice as common as either walks in the neighbourhood or visits to local farms or industrial establishments".[5]

Among the reasons cited for lack of fieldwork were transport difficulties, insufficient time and multiple classes.

(ii) In 1975, four years after the publication of the current curriculum, the Conference of Convent Primary Schools engaged in a questionnaire survey of its members. Perhaps the dilemma which arises regarding fieldwork is well illustrated by the anomalous outcome of this survey in the case of geography. While "Local Environment" was rated as being important by 73% of the respondents "Fieldwork" was similarly rated by only 2%.[6]

The irony of this position was noted in a comment accompanying the Report. By way of extenuation "large classes", the necessity for "detailed planning and preparation" and "the responsibility of supervising 40/45 pupils" were mentioned as the factors mainly identified as disincentives.[7]

(iii) Neither the INTO Curriculum Questionnaire Analysis of 1976 nor the consequent report of its Education Committee, addressed fieldwork. However it's probably reasonable to conclude that its omission from the latter in particular could be taken as evidence of continued neglect. The following is the Report's pithy section on geography:

> In the teaching of geography it was felt that more emphasis should be placed on the provision of basic factual information. Visual aids such as charts, maps, filmstrips and slides are required urgently and the Ordance Survey maps of school districts should be re-issued to all schools. Reports indicated that Project Work had only a limited value. [8]

(iv) The most comprehensive and contemporary evidence on the condition of geography and the prevalence of fieldwork in the primary school has recently been accumulated in the course of an extensive questionnaire survey in Social and Environmental Studies conducted by the Curriculum Unit of the Department of Education. Regrettably the findings have not yet been published but it is possibly reasonable to anticipate a continuing low profile for local fieldwork.

Fieldwork in geography is characterised by certain approaches and methodologies some of which are unique. They include case studies of such topics as a local manufacturing unit, a shopping centre, or a farm, surveys such as land-use or traffic, urban or rural transects and weather studies.[9] Trails are of relatively recent origin. . As formal educational resources - to distinguish them from the widespread and instructive forest trails - they post-date the Teachers' Handbook for Primary Schools, first appearing in this form in 1972 the product of two lecturers in geography at Leicester College of Education - hence the opening allusion to irony.

What then does a trail have to offer that makes it relevant to local geography?

We can find cogent arguments in the Schools Council publication "Learning From Trails".[10] Although this apologia is predominantly concerned with nature trails the case readily transfers to geography. We are advised that a " . . . trail can be a great help in organising a class out of doors because of its structured and programmed quality, particularly for those teachers who have little experience of working with children in the informal way that field studies demand".

"Most children" we are told:

> particularly in the middle years, enjoy using trails. They are at the stage when treasure hunts, detection and tracking are exciting activities. The idea of a programme of leads-to-follow and things-to-look-for have a great motivating appeal for them. In terms of school work following a - trail is a novelty with a change in the style of teaching. Most pupils enjoy the change of experience and it does provide an incentive to learning. It may awaken interests and stimulate enthusiasms which otherwise would lie dormant.

That would seem to fit neatly with Piaget's scheme of things at the concrete operational stage.[11]

One further significant argument might be culled from this publication. Trails, it is claimed, "can develop interest and involvement and that leads to a feeling that things matter to pupils and hence to a commitment to conservation".

The structured programmatic or leads-to-follow quality of trails greatly depends on guides or booklets. As trails have evolved into educational resources the term "guide" with its passive connotation has increasingly become redundant. Instead booklet seems a better fit accommodating different objectives. The booklet compiled for the trail was greatly inspired in its format by the Trails Handbook for Teachers, published by the Queen's University of Belfast Teachers' Centre and by the booklets produced at the course described in Seamus O Canainn. Rather than a repository of information it incorporates sets of assignments, with facts, data and information being supplied only to facilitate discovery and observation.

The construction, trial and assessment of the trail was undertaken as a project by the students who had elected to do Curricular Geography as their special subject option in this, their final year at Carysfort.

To fit course and timetable constraints within the college the school invited to participate was relatively easy of access being on a convenient bus route. The school in question is Harold's Boys' National School at Glasthule, just east of Dun Laoghaire. It is a four-teacher school with classes ranging from 2nd to 6th. The trail was devised to be used by the

6th Class. Although it is part of the greater conurbation of Dublin, Glasthule has managed to retain the distinctive hallmarks of a village and thereby its own unique and distinctive character. It can boast a storied seafront to the north. Paralleling the seafront a fairly busy thoroughfare linking Dun Laoghaire with Dalkey and other locations is straddled by its business district and constitutes its main axis. This is the trail zone. The school itself stands on a secondary parallel thoroughfare which is predominantly residential in character.

The boys are mainly resident in the school vicinity and are representative of the social spectrum of the community. They can be regarded as fairly typical of a sixth class in a suburban boys' school. They numbered 25 in all. Although the pupils were not without learning experiences of the dicactic nature in the locality, prior to the trail they had not engaged in active discovery-methods there.

Preparation for the trail was of a dual character - remote and proximate.

Remote preparation involved 5 distinct stages:

(i) Seamus O Canainn appraised the group of the rationale behind Trails as evinced at the course held under the auspices of the Blackrock Teachers' Centre in July '83. He supplied booklets which had been produced by participants in the course and a copy of the handbook published by the Q.U.B. Teachers' Centre. These provided grist for a workshop session, the objects of which were to identify some of the principles upon which trails are based and to become familiar with the structure and graphical approaches involved in booklets;

(ii) two preliminary visits were made to Glasthule. The first began with a visit to the school for a preliminary introduction of students and pupils. Afterwards the group engaged in overall orientation and familiarisation with Glasthule. Five stops or stations were then selected for the trail and pairs of students adopted a stop each in order to identify its learning potential.
On a subsequent visit detailed observations were made with a view to setting assignments and posing questions;

(iii) the students then reviewed their field observations and listed behavioural objectives for each of the five stops.
The objectives were to take account of the following framework:

- The identification of significant attributes which contributed to the specific character of each stop as an integral element of the place;
- the provision of opportunities for the development of relevant skills;
- the fostering of positive values and attitudes;
- the manifestation of concepts such as change, similarity/difference, cause/consequence;

(iv) based on these objectives a booklet was compiled and copies using the facilities of the Resource Centre at the College.

The most important element in proximate preparation consisted of a preliminary classroom lesson. This was conducted by one of the students. It occurred one week before the actual trail. Its aim was to make the class aware of what would be involved in the trail by drawing attention to the locations to be visited, by the exposition of some of the skills to be exercised on the trail and by revealing some of the graphics to be employed in the booklet.

The specific objectives postulated for the lesson were to enable the pupils:

- to establish direction with the aid of a magnetic compass;
- to recognise the spatial character of Glasthule as evidenced in an extract from the relevant O.S. sheet (Scale 1 : 1000);
- to identify the specific locations to be studied on the trail;
- to measure altitude with a clinometer;
- to understand the symbols to be used in the booklet.

This lesson was recorded on video and the following are highlights:

Prior to embarking on the trail further forms of proximate preparation were necessitated. To ensure effective management one member of each of the pairs of students undertook to act as surrogate teacher for the respective stops. All the essential aids and resources were assembled including clip-boards, a magnetic compass, a clinometer, a trundle wheel and surveyor's tape, crayons and papers for rubbings. For Stop 5 two separate groups had to be organised. Immediately prior to departure the booklets were distributed and ground-rules specifying ambits for investigation, procedures for progress from stop to stop and precautionary conduct were clearly enunciated.

STOP ONE:

This was at a small car-park in the heart of Glasthule lying beside the main street. Among the behavioural objectives underlaying assignments here were:

- count the number of car spaces;
- record the names of 5 cars
- suggest who the owners of the cars were
- establish North, South, East and West;
- note the uniform character of the houses to the south
- explain the meaning of "terrace".

The following are highlights. It is not irrelevant to observe beforehand that on the day in question - 19 February, 1984 - the midday temperature recorded for Dublin Airport was 2° Celsius.

STOP TWO:

This was a Victorian Terrace built between 1880 and 1890. Among the objectives for this stop were:

- recognise the category to which the housing arrangement belongs;
- compute the number of houses;
- estimate the number of families in a given house;
- draw a picture of one of the houses;
- suggest a reason why the terrace is suitable for elderly people.
- recognise superimposed signs of modern life.

The following are highlights:

STOP THREE:

The Railway Station. Some of the objectives for this stop were:

- identify the name applied locally to the passage bordering the railway;
- explain the origin of the name;
- list visible phenomena to do with a railway station;
- record the text of a danger notice;
- note patterns in the train timetable.

The following are restricted highlights:

STOP FOUR:

The local Catholic Church. Included among the objectives for this were:

- record the name of the Church;
- copy the Latin inscription;
- locate lighting conductors and estimate their function;
- recognise granite as a building stone with the help of clues;
- discover directly or indirectly the height of the steeple.

The following are highlights:

STOP FIVE:

The intersection and traffic lights. Some of the objectives here were:

- observe the frequency at which the lights change;
- note the incidence of men, women and children crossing by means of the pedestrian crossing;
- compile a classified census of traffic moving in a specific direction during a given period.

The following are highlights.

An attempt to engage in objective assessment suffered - in comparison with the planning stage - from lack of attention and time. By way of extenuation it might be said that in part this is attributable to the fact that some of the more important outcomes - namely the effective ones - do not readily lend themselves to objective assessment.

A week after the trail several questions or brief tasks were posed in relation to each stop. I propose to indicate here only the responses relating to the first one - the car park.

The pupils responded as follows to the questions indicated:

i) "Was it Full?"
No - 22
Yes - 4
"No" was the correct response.

ii) "About how many cars moved in and out of the car park while you were there?"
There were eight variations in this response ranging

from 2 to 12 with a notable cluster between 3 and 6 accounting for 19 of the responses. The greatest number (7) plumped for 4.

iii) "Put a tick after the description which you think would be best for the motorists who entered or left the car park while you were there:

a) People working in shops or other kinds of business in Glasthule - 6 options
b) Customers visiting shops or other kinds of business in Glasthule - 16 options
c) People living in the houses near the car park" - 2 options

iv) North South East West
"Pick out the word which you think is most correct and put it in the empty space in this sentence:
The car park is to the ☐ of the main road".

Responses:

North - 2
South - 17
East - 2
West - 4
North/West - 1

The correct response is "South".

The findings of this assessment indicate:

* high accuracy in identifying vacant spaces;
* reasonable consistency in incidental, undirected observation;
* a high degree of uniformity in speculating on the function of the car-park;
* a high degree of success arising from the compass-reading skill episodes.

It should be pointed out that such satisfactory outcomes were not uniform throughout the assessment. In particular the geometric theory behind the exercise with the clinometer was not understood, but this of itself was a useful finding.

One workshop session was devoted to over-all evaluation of the trail following which the students submitted written comments. The following is an attempt to paraphrase their views in brief:

In general the trail was an effective worthwhile activity: a trail should not be a unique experience for pupils in sixth class. Graded activities of this kind should occur at regular intervals throughout the school, beginning with modest trails in the school grounds.

A variety of comments related to the booklet. The importance of structure and vocabulary was mentioned and the booklet itself was roundly faulted. Remarks in this area concerned greater use of divergent questioning, more emphasis on effective objectives greater emphasis on higher cognitive skills and greater emphasis on conceptualisation. Some questions were seemed too insignificant for inclusion. It was also suggested that there was too much recording and that this contributed to undue length.

The proximate preparation was deemed inadequate on several counts. It was felt that greater attention should have been given to the outline of the trail itself and to conceptualisation of what is entailed. Greater exposure to the booklets beforehand would have obviated management difficulties in the field.

The problems of the necessity for auxiliary supervisors in the field was seen as important. An interesting observation that received considerable support favoured the arrangement of pupils in working pairs. This was seen as having the simultaneous effect of ensuring more refined responses and promoting co-operation and socialisation.

Finally follow-up activities in the classroom were seen as imperative. This was also clearly implied in the assessment exercise.

Notwithstanding the difficulties involved in their planning and preparation Trails can be viewed as auspicious educational resources. The trail at Glasthule was of tangible benefit to the pupils involved. Nonetheless it could be enhanced. In addition to the remarks of the students it might be said that the stops were discrete. The trail would benefit from a greater underlying thematic or conceptual framework. For instance had it addressed itself to the hypothesis that the transport infrastructure at Glasthule is adequate a greater rationale would impel it along. The prospects are there for trails. Properly devised as educational resources they might enable exchange to occur between schools thus fulfilling, in a relatively painless way, one of the fondest aims of geography teaching, the study of unfamiliar locations.

Carysfort personnel:

Pauline Burke - Co-ordinator, Resource Centre
Roddy Walsh - Technician, Resource Centre
Eanna de hAl - First-year student, camera operator on Trail.

3rd Year Students:

Carrie Maher / Pauline Loftus
Ann Kavanagh / Veronica Kavanagh
Brid Rushe / Eithne O'Doherty
Valerie Shreathnach / Nora Burke
Karen Kilfeather / Miriam Hurley

REFERENCES

1 *Project Environment/Learning from Trails*. (London : Longman/Schools Council, 1974). p. 1.

2 *Trails - Handbook for Teachers* (Belfast : Queen's University Teachers' Centre, 1982). p. 4.

3 *Annual Report*. (Dublin : Blackrock Teachers' Centre, 1984) p. 5.

4 *Primary School Curriculum, Teacher's Handbook, Part II* (Dublin : Department of Education, 1971) p. 133.

5 Desmond A. Gillmor, "Geographical Education in Ireland and the National Commission for the Teaching of Geography". *Geographical Viewpoint*, Vol. 5, (1973) p. 64.

6 *Evaluation of the New Curriculum in Primary Schools*. (Dublin : Conference of Convent Primary Schools, 1975). p. 30.

7 Ibid., p. 24.

8 "Education Committee". *An Muinteoir Naisiunta*. Vol. 21, No. 6, (June/July, 1977). p. 17.

9 Roger Clare, "Fieldwork in Urban Areas", in *Geographical Work in Primary and Middle Schools*, ed. by David Mills (Sheffield : The Geographical Association, 1981), pp. 49-62.

10 *Project Environment/Learning from Trails*. p. 7.

11 Jean Piaget, *Science of Education and the Psychology of the Child*. (London : Longman Group, 1971). p. 32.

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EFFECTIVE COMMUNICATION OF MATHEMATICS AT PRIMARY LEVEL : FOCUS ON THE TEXTBOOKS

Catherine Mulryan

Introduction

Important changes in primary mathematics education have taken place in Ireland in recent years. These changes have occurred as part of the implementation of the new primary school curriculum which was introduced in 1971 and affected all subject areas. The new mathematics programme at primary level differs in content and method from the earlier, more traditional mathematics programme.

Changes in content have been chiefly towards an increased concern with the structure of mathematics, and in an expansion in the range of topics included in the primary mathematics programme. These changes, however, have been less radical and less observable than the methodological changes which were envisaged in the new programme. The new methods of teaching mathematics at primary level have resulted most conspicuously from the psychological insights of the ontogenetic or cognitive psychologists - most notably Jerome Bruner and Jean Piaget - as to how the child learns. Emphasis in the new programme was to be placed on the experiental aspects of mathematics learning, i.e. on the understanding and exploration of mathematical patterns and structures. Pupils were to be encouraged to think for themselves by being given experience at first hand, through manipulation and experiment, of the order, pattern and relationships of mathematics. Computational skill was to continue to be regarded as a necessary component in a mathematics programme, but a skill nevertheless which must follow and not precede understanding.[1]

The new mathematics programme made new and additional demands on teachers. In the new situation the teacher was to become a facilitator of learning. The teaching of mathematics at primary level was to become a guiding, monitoring process. For such a programme to be implemented effectively a variety of teaching resources was required. A vast range of concrete and written materials are currently available for mathematics teaching and learning, and are used widely in primary schools today.

The mathematics textbook as a teaching and learning tool

Several recent studies have indicated that mathematical written materials and especially mathematics textbooks, are by far the most used and depended upon aids employed in the teaching of mathematics at the present time. A recent study carried out by the National Science Foundation in the United States found that from grade three (age 8) onwards the usual procedure in mathematics lessons is some initial clarification or explanation by the teacher, followed by seatwork during which children work on their textbooks or workbooks.[2] The situation appears to be quite similar in Ireland judging from the findings cited in recent reports by primary school inspectors in Northern Ireland and in the Republic of Ireland on mathematics teaching.[3] Both reports point to an overdependence on mathematics textbooks by primary teachers.

The Northern Ireland report indicates that mathematics textbooks are used "sensibly" and "with moderation" in grades five and seven and "excessively" in all other grades. At the same time even in grades five and seven teachers schemes of work are determined by the class textbook.[4] The report on primary mathematics in the Republic of Ireland draws attention to the overdependence by teachers on mathematics textbooks and workbooks at all levels of the primary school. When fifty-six primary school inspectors were asked to suggest causes for children's poor performance in important areas of the primary mathematics programme a substantial proportion of them cited overdependence on mathematics textbooks and workbooks as the main cause.[5] Further evidence is also available to support this viewpoint. In 1981 a study carried out by the Primary Teachers Mathematics Group (PTMG) investigated the extent of coverage of mathematics topics in four series of widely used mathematics textbooks.[6] It emerged from this study that areas of the mathematics programme in which children had greatest difficulty according to the Department of Education report were the areas which received proportionally less coverage in the mathematics textbooks than topics on which children performed well. In addition an earlier study carried out by the PTMG on teachers perceived difficulties in teaching particular topics in mathematics, indicated that the topics which teachers found most difficult to teach received less coverage in mathematics textbooks than topics which were perceived as presenting little or no difficulty.[7] These findings may be related to the intrinsic difficulty of particular mathematical topics at primary level. On the other hand, the pattern emerging does indicate that to some extent the content of primary mathematics textbooks is influencing content selection and emphases, and consequently learning outcomes in the primary school classroom.

A wide range of signifiers are used to communicate mathematical content in primary mathematics written materials and especially mathematics textbooks. These include words, notation signs and graphical symbols of various kinds. Because of the apparent overdependence by teachers on mathematics textbooks the representational forms used in these textbooks are likely to be reflected in the way in which mathematics is represented by pupils and teachers in the mathematics class. Recent research on the use and treatment of mathematical signifiers in mathematics textbooks gives cause for concern about the effects of dependence on mathematics textbooks on the quality and nature of mathematics teaching in primary schools.

Studies by Annabel Cormack in Britain, Betty Willmon in the United States and Herodezky and Smigh-Weinstein in Canada of the language used in primary mathematics textbooks in their respective countries, cited excessive vocabulary load, variability of word meaning, insufficient repetition of mathematical terms and inadequate vocabulary control as rendering these textbooks difficult for primary school children and "unusable" for some.[8] Similar findings emerged from an analysis of the vocabulary of four Irish primary mathematics textbooks carried out by Mulryan and Close in 1981.[9] These findings indicate that the language of the mathematics textbooks which are being used in Irish primary schools at the present time are likely to present difficulty for at least some children.

Studies of the use and treatment of language in mathematics textbooks have been useful in drawing attention to language difficulties which children may encounter in their mathematics textbooks. However, since as indicated above, a range of signifier types are used to communicate mathematics in these textbooks they give only a partial indication as to the difficulty level of mathematics textbooks and as to how mathematics is being communicated in mathematics textbooks and in the primary school classroom at the present time.

In the remainder of this paper a study of the nature, amount of usage and treatment of the full range of signifiers used in three series of Irish primary mathematics textbooks is described and the implications of the findings and the findings of the earlier associated studies for the effective communication of mathematics in primary schools are discussed.

Purpose of the study

In the light of the research evidence cited above, this study sets out to examine the nature, amount of usage, and treatment of the full range of signifiers used in three series of primary mathematics textbooks. The results of this study are likely to reflect the way in which mathematics is being communicated in the primary school classrooms in which these textbooks are being used, and the degree to which these textbooks are likely to be facilitating the implementation of the new primary school curriculum.

Design of the study

The following three series of primary mathematics textbooks were examined in this study: *Primary Maths Course*, *Meeting Mathematics* and *Step by Step Maths*.[10] The textbooks of each series were examined to find out the range, extent of use and treatment of words, notational signs, and graphical symbols in each.

These three signifier categories were further subdivided as follows:

Word signifiers	general vocabulary technical vocabulary special vocabulary	mathematical terms
Notational signs	numerals notation signs	
Graphical symbols	pictorial symbols diagrams	

Numerals, however, were excluded from the study and two additional signifier types which are used widely in the mathematics textbooks examined were included, i.e. mathematical abbreviations and "letters".

The following factors relating to the use of signifiers were considered in the case of each textbook series:

1 The range of signifier types used in each textbook series.

2 Running words (general vocabulary and mathematical terms) notation signs, graphical symbols, mathematical abbreviations and "letters" as a proportion of all signifiers in each textbook of each textbook series.

3 The total number of words (general vocabulary and mathematical terms), mathematical terms, notation signs, graphical symbols, mathematical abbreviations and "letters" in each textbook and in each textbook series.

4 The number of different general vocabulary words, mathematical terms, notation signs, and mathematical abbreviations in each textbook series.

5 The rate of introduction of general vocabulary, in mathematical terms, notation signs, and mathematical abbreviations in each textbook series.

6 The amount of repetition of mathematical terms, notation signs and mathematical abbreviations in the textbook in which they are introduced.

Definition of Terms

General vocabulary : word signs used regularly in all walks of life on a daily basis e.g. "and", "from", "over", "can", etcl.

Mathematical terms : a term which has a specific mathematical meaning in the context in which it is used. Mathematical terms can be one of two kinds, i.e. technical or special as defined below.

Technical vocabulary : mathematical technical vocabulary consists of word signs peculiar to mathematics as a field of study, e.g. "heptagon", "multiple", "denominator".

Special vocabulary : word signs which are used in all walks of life on a daily basis, but which take on a different, specialised, or mathematical meaning in the context of mathematics, e.g. "match", "set", "group", "figure".

Notational signs : signs of the Hindu-Arabic number system and notation signs for mathematical relations and operations.

Notation signs : notation signs for mathematical relations and operations, e.g. +., -, x, ÷, >, <.

Graphical symbols : pictorial and diagrammatic representations of mathematical content which demonstrate or illustrate mathematical principles, propositions, statements or ideas.

Mathematical abbreviations : shortened or abbreviated forms of mathematical technical word signs as defined above, e.g. cm, m, km, HCF.

"Letters" : consists of letters of the alphabet - upper or lower case - which represent numerals, lines, spatial configurations, etc. in Mathematics textbooks.

"Different" signifiers : individual signifiers which are identified once in a textbook series regardless of how often they occur in the textbooks of that series.

Rate in Introduction : the number of new signifiers introduced in each textbook throughout a textbook series.

Repetition : any repetition of new signifier in the textbook in which it is introduced whether or not the repetition is accompanied by explanation or development.

Methodology

Sample : In this study three mathematics textbook series as indicated above were chosen for analysis. The books were chosen from the Department of Education's list of sanctioned books, and are widely used in primary schools at present. There are six textbooks in each series, one for each primary grade from grade one to grade six.

Data collection

In the collection of data in this study two basic procedures were used, i.e. counting procedures and sampling procedures. Counting procedures involved the counting of the relevant data on each page of each textbook in each series, i.e. one hundred per cent samples. This procedure was carried out for the collection of all data except for the total number of words and mathematical terms and the proportion of words to all signifier types. This latter data was collected by a sampling procedure in which forty per cent of the pages in each textbook were randomly selected and the relevant signifiers counted. The estimate for the total population in this case was obtained by multiplying the forty per cent sample by a factor of two and a half.

Reliability checks indicated differences of under four per cent in the case of counting and under ten per in the case of sampling.

Results

The findings of this study indicate that a reasonable consensus exists among textbook authors in the emphasis given to particular signifier types in their mathematics textbooks. In all textbooks examined words were found to constitute the greatest proportion of signifiers used. Between 59% and 79% of all signifiers in the mathematics textbooks examined are words (i.e. general vocabulary and mathematical terms). Notation signs in all textbooks come next in order of prominence. Between them words and notation signs make up between 88% and 92% of the signifiers used in each textbook. In all textbook series therefore relatively little use is made of graphical symbols, mathematical abbreviations and "letters" as a means of communicating mathematical content. In the textbooks examined between 1% and 4% of the signifiers used are graphical symbols, between 2% and 9% are mathematical abbreviations and between 17% and 4% are letters.

The pattern indicated here in the proportion of each signifier type used in each mathematics textbook series is reflected in the findings on the total number of each signifier type in each textbook and in each textbook series. Again, the greatest number of signifiers used in each textbook and each series are word signifiers. Table 1 indicates the extent of these word totals. Notation signs have the next highest totals in all cases followed by mathematical abbreviations, graphical symbols and "letters".

Within the word sign category, as shown in Table 2, considerably more different general vocabulary words

TABLE 1 Total number of words in each textbook and in each textbook series

	Series A	Series B	Series C
Book 1			
40% sample	2,818	1,544	4,037
population estimate	7,045	3,680	10,093
Book 2			
40% sample	3,504	3,001	4,875
population estimate	8,760	7,503	12,188
Book 3			
60% sample	3,149	4,032	5,472
population estimate	7,873	[illegible],080	13,680
Book 4			
40% sample	4,338	4,316	5,208
population estimate	10,845	10,790	13,030
Book 5			
40% sample	6,315	5,774	8,939
population estimate	15,788	14,435	22,348
Book 6			
40% sample	8,880	6,512	9,919
population estimate	22,200	16,280	24,798
TOTAL	72,511	62,768	92,127

TABLE 2 Number of different general vocabulary words, mathematical terms, mathematical notation signs and mathematical abbreviations in each textbook series.

	Series A	Series B	Series C
General vocabulary	1,624	1,831	2,160
Mathematical terms	781	889	888
Notation signs	26	34	38
Mathematical abbreviations	57	49	65

than different mathematical terms are used in all cases. In all series more different mathematical abbreviations than different mathematical notation signs are used. Although the total number of mathematical terms was found to approximate closely to the total number of mathematical notation signs in each series, considerably more different mathematical terms than different mathematical notations signs are used in each textbook series.

The findings on the number of different signifiers used in each textbook series are reflected in the findings on the rate of introduction of signifiers in each textbook series. In the case of words, i.e. general vocabulary and mathematical terms, a very high rate of introduction is apparent in all series. This is shown in Table 3. In the case of all signifier types the rate of introduction appears unplanned and uncontrolled.

TABLE 3 Rate of Introduction of general vocabulary and mathematical terms in each textbook series.

	Series A		Series B		Series C	
	Gen	Maths	Gen	Maths	Gen	Maths
Book 1	335	164	294	186	526	217
Book 2	186	82	251	100	313	54
Book 3	151	126	338	155	276	147
Book 4	231	92	269	124	236	96
Book 5	334	175	339	181	419	226
Book 6	387	142	340	143	390	148
TOTAL	1,624	781	1,831	889	2,160	888

Findings on the amount of repetition of new mathematical terms, notation signs and abbreviations reveal that huge variations exist in the number of times that signifiers are repeated in the textbook in which they are introduced. In the case of mathematical terms the average rate of repetition among series was five and the average for individual textbooks fell below ten in all cases. In general the repetition of new signifiers in the textbook series examined in this study was found generally to be insufficient and largely uncontrolled.

Overview

In the case of all textbook series the number of word signs, i.e. general vocabulary and mathematical terms appears especially high when compared with the vocabulary load of basal English reading textbooks being used at corresponding grades in Irish primary schools. For example, in a widely used based English scheme, i.e. Hopscotch, a child would meet approximately 6,400 words in grade 1 (i.e. basic 4 and extension 4) compared with an estimated 7,045 words in series A book 1 and 10,093 words in series C book 1.[12] The same results emerge for other grade levels.

In addition the words in reading schemes are chosen from word frequency lists whereas the words in mathematics textbooks are not. Approximately one in five of the words in mathematics textbooks are mathematical terms.

Given that a range of other non-word signifiers are also used in mathematics textbooks the loading of signifiers in these textbooks is clearly far higher than the loading of signifiers in children reading textbooks.

In addition the mathematics textbooks examined in this study contain considerably more "different" signifiers than based reading textbooks. In books one to six, i.e. the basic textbooks of the Hopscotch series intended for use from infant grades to grade three, approximately 800 different words are used in all.[13] In the case of the mathematics textbooks used in grades one, two and three, 1044 different words are used in series A, 1324 in series B and 1533 in series C. Many of these "different" words are mathematical terms, and many other different non-word signifiers are also used in each series, i.e. notation signs, mathematical abbreviations and "letters". Thus more new words are introduced in the first three books of each mathematics textbook series than in the whole Hopscotch reading series.

Also, whereas the rate of introduction of words in the Hopscotch series and in basal reading schemes generally are carefully controlled, the rate of introduction of signifiers in the mathematics textbook series appears unplanned and uncontrolled. The rate of repetition of words in the Hopscotch and other basal reading schemes is carefully controlled.[14] The rate of repetition of signifiers in the mathematics textbook was found to be unplanned with huge variations existing within and across series.

Discussion

Communication is fundamental in education, and effective communication in education is largely dependent on a shared system of meanings existing between educator and learner. In order for this shared system of meanings to exist, the signifiers which are used to communicate knowledge in the various content areas of the curriculum must be appropriate both to the nature of the knowledge to be communicated and to the ability and needs of learners.

In the mathematics textbooks which were examined in this study a wide range of signifiers are used. Each of these signifier types may be considered as being appropriate for communicating mathematical content. However, the way in which these signifiers are used in the mathematics textbooks would seem to be less than appropriate. In the light of the results of this study it is apparent that the use and treatment of signifiers in the textbooks examined is likely to act as a source of interference reducing considerably the potential of these textbooks to communicate mathematical knowledge effectively. These textbooks are unlikely to be suited to either the mathematical or linguistic abilities of young learners. As such they are unlikely to serve as vehicles of shared mathematical meanings between textbook author and textbook user. Furthermore the effective communication of the content of these textbooks is unlikely to take place without a considerable amount of "translation" or signifier teaching. In the light of the evidence indicating that primary teachers depend to a large extent on mathematics textbooks in their mathematics teaching, several problems in promoting meaningful learning of mathematics are envisaged.

Meaningful mathematics is a complex, many-faceted process in which activity and exploration are indispensable to the comprehension of mathematical structures and relations. Although signifiers play an important role in this learning they are not the primary vehicles or mechanisms which cause it to occur. Signifiers play a secondary role in mathematics learning by making mathematical content which has been learned through the medium of activity and exploration communicable. Signifiers pin down and clarify concepts. Thus the ability to use signifiers is not indicative of the understanding of mathematical concepts, and the young child may know more mathematics than his ability to use conventional mathematical signifiers suggests. Also children differ in the rate at which they can move from the concrete manipulation stage to the stage at which they can represent mathematical content in mathematical signifiers.

Because of the characteristics of the mathematics textbooks identified in this study there is a danger that in an effort to help children to use their mathematical textbooks efficiently much valuable class time which otherwise might be spent on practical activities will be spent on vocabulary training and textbook interpretation. It is likely that teachers depending on the mathematics textbook series examined in this study may be forced into a teaching style which is determined more by the demands of the textbook than by the demands of meaningful mathematics learning and pupil needs. If the linguistic demands of the textbook and the demands of other signifier types either in amount or treatment, reduce the time available for practical work and activity-based discussion, the signifiers of these textbooks are likely to become empty shells, and mathematics learning mere verbiage and signifier manipulation. The use of signifiers without concepts, the attachment of signifiers to inappropriate schemas, and mathematics learning without the relevant signifiers to communicate it, are only some of the problems which are likely to result from a dependence on the textbooks analysed in this study.

The findings of this study on the use and treatment of signifiers in mathematics textbooks raises fundamental questions about the role of mathematics textbooks at primary level. At the present time research evidence suggests that these textbooks serve a dual role. They are used firstly as guidelines for teachers in working out the specifics of the mathematics programme at each grade level. On the other hand, they are used as aids to independent learning and consolidation by pupils. However, given the characteristics of the textbooks examined in this study, it is unlikely that either of the roles cited above is served particularly well by these textbooks. The textbooks are unlikely to help teachers in organising and planning practical activities or choosing useful and suitable forms of representation. In addition, as indicated above, they are unlikely to promote effective learning and consolidation of mathematics in young children. It is suggested here also, that the division of mathematics textbook series into six consecutive textbooks, one for each grade level, may be unsuited to the needs of many children in primary schools and also unsuited to some teaching situations, e.g. multigrade classes.

The reason for the failure of mathematics textbook authors to pay adequate attention to the use and treatment of signifiers in mathematics textbooks may be due to the fact that the study of content area language, including mathematical language, is as yet only in its infancy. In addition research has paid little or no attention to the use of non-language signifiers in content area textbooks including mathematics textbooks.

To criticise and point to the deficiencies of the mathematics textbooks which are available at the present time it is not to suggest that mathematics textbooks as teaching and learning tools should be dispensed with altogether. Mathematics textbooks in which the content is presented well and appropriately can provide a support for teachers in the classroom.

The only true test of the effectiveness of the communication of mathematical content in mathematics textbooks is in the actual monitoring of their use in the classrooms. Mathematics textbooks and other related written material, it is suggested here should be piloted in actual teaching situations before becoming generally available for classroom use. Also it is suggested that it may be unrealistic to evaluate and monitor the use of textbooks which are written to be used in conjunction with a mathematics programme, unless that programme itself is subjected to the process of evaluation. It may be that some of the difficulties which occur in the communication of mathematics may be due to the fact that the content of the programme may be inappropriate to the development stage of the children for whom it is intended.

Conclusion

It is suggested here that teaching materials and resources should ideally be chosen and produced on the basis that they serve to further the teachers aims and enhance the effectiveness of teaching. It is important then that teachers make known their needs to textbook authors and publishers and that teachers, textbook authors, publishers and Department of Education inspectors should collaborate in setting out guidelines and criteria for the writing of textbooks on other teaching materials which would ensure that teachers are given greater support in trying to promote meaningful mathematics learning and implement the new programme effectively. In addition some dissipation of research findings relating to communication in content areas and the role and use of signifiers in effective mathematics learning would be advisable, in order to create an awareness of problems which are likely to arise in this area. This is a relatively new area of research in which much work remains to be done. It is an area, however, which needs immediate attention if future mathematics written material are to act as vehicles of shared meanings in the communication of mathematics to young children.

REFERENCES

1 Department of Education. Primary School Curriculum. *Teachers Handbook*. Part 1 (Dublin : Browne and Nolan, 1971). p. 15.

2 James T. Fry. "Mathematics Teaching Today" : Perspectives from Three National Surveys". *Arithmetic Teacher*. (October 1979).

3 Department of Education of Northern Ireland. *Primary Education - Report of an Inspectorate Survey in Northern Ireland* (1980); Department of Education, *Report on the Teaching of Mathematics in Primary Schools*. (1977).

4 Department of Education in Northern Ireland. *Primary Education*. p. 23.

5 Department of Education. *Teaching Mathematics in Primary Schools*.p. 3.

6 Catherine Mulryan. "An Analysis of Four Series of Irish Primary Mathematics Textbook Series", paper presented at the Irish Mathematics Teachers Association seminar on Mathematics Education at St. Patrick's College, Dublin, November 1982.

7 Primary Teachers Mathematics Group. "A Survey of Problem Areas in the Teaching of Mathematics in some Dublin Primary Schools". Unpublished paper, 1973.

8 Annabel Cormack. "A Study of Language in Mathematics Textbooks" (M. Phil Dissertation, Chelsea College, 1978); Betty Willmon. "Reading in the Content Areas : A "New Maths" Terminology List for the Primary Grades". Elementary English, 4[illegible] (1971) : 463-471; Betty Horoderzky and Pauline Smith-Weinstein. "A Comprehensive Analysis of Vocabulary Load in Three Provincially Adopted Primary Arithmetic Series". *The Alberta Journal of Educational Research*. 27 (1981).

9 Catherine Mulryan and John S. Close "A Study of the Mathematical Vocabulary of Primary School Mathematics Textbooks". *Irish Educational Studies*. 2. (1982); 305-321.

10 Kevin McDonagh, *Primary Mathematics Course* (Dublin : School and College Services 1979); James McGivern, *Meeting Mathematics* (Dublin : The Educational Company, 1974 (books 1 and 2), 1979 (book 3), 1980 (books 3, 4, 5 and 6); Clare Martin, *Step by Step Mathematics* (Books 1 and 2) (Dublin : Gill and MacMillan, 1981); Tom Slevin, *Step by Step Mathematics*, 1981, (books 3 and 4), 1980 (books 5 and 6). These series are henceforth known as Series A, B and C respectively.

Hopscotch Reading Scheme, *Teachers Manual* (Dublin : Fallon, 1976) p. 17.

Ibid., p. 9.

Ibid., pp. 9-10.

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PRACTICAL WORK IN THE LEAVING CERTIFICATE CHEMISTRY COURSE

Adrian J. Ryder

The last examination based on the old Leaving Certificate Chemistry syllabus was taken in June, 1984. This syllabus did not demand that practical work be done, nor was practical work as such examined. The incoming syllabus (introduced to the pre-Leaving Certificate pupils in September 1983) recommends that about 40% of teaching time be devoted to laboratory work and demands that each school should certify that laboratory work, in substantial accordance with the syllabus.[1]

With this change in syllabus, it seemed an appropriate time to examine two questions:

1 Why should practical work be done in Leaving Certificate Chemistry?
2 What is the present state of practical work in Leaving Certificate Chemistry?

Between January and April of 1982 a survey was carried out of all second-level schools in County Galway. All teachers taking Chemistry either on its own or as the joint Physics with Chemistry course were asked to fill in an Opinionnaire and to get their Leaving Certificate Chemistry students to fill in a shortened form.

Table 1 details the number of schools in the County and gives the number of each taking Chemistry.

Two of the Secondary schools not taking Chemistry indicated that it was being introduced in the 1982-1983 School-Year.

TABLE 1 School Type by Provision for Chemistry

School type	No. of Schools in County	No. taking Chemistry
Community	2	Nil
Comprehensive	2	Nil
Secondary	31	26
Vocational	16	Nil

No immediate reason as to the failure of the Community, Comprehensive and Vocational schools, all connected with the V.E.C., to provide Chemistry was not forthcoming.

Table 2 gives a breakdown of the schools taking Chemistry.

TABLE 2 Participation in Chemistry by Gender Composition of School

	Type of School		
	Boys	Girls	Co-Educational
No. of Schools taking			
a) Chemistry on its own	6	8	6
b) Physics with Chemistry	0	1	3
c) Both chemistry and Physics with Chemistry	1	1	0

From table 2 it is seen that joint Physics with Chemistry course is far less popular than the Chemistry course on its own.

Table 3 gives the number of returns from each participating group.

TABLE 3 Teacher and Pupil Response Rate

Teachers		Pupils	
Male	Female	Male	Female
18 (100%)	15 (100%)	245	210

The return of 100% of the teachers was gratifying as it gives a complete picture of the state of Chemistry in the County. The percentage of the pupils answering was not determined exactly as it is not known how many were absent on the day the Opinionnaires were dealt with. However there is no reason to suppose that the figure is very much less than one hundred per cent.

Each teacher and pupil was given a list of twenty six objectives with a space for any other not specified and was asked to indicate the five answers considered 'most worthwhile' to the question "why should Practical work be done in the Leaving Certificate Chemistry Course?" and also the five answers considered 'least worthy' to the same question.

Table 4 gives the list of objectives as sent out.

The returns were tabulated for Male teachers, Female teachers, Male Students and Female students and the Spearman product-moment correlation (at the .01 level) with the correlation between the teachers (Rho = .88) and between the Students (Rho = .91) being so high as to justify the combining of the teacher groups with each other. Likewise the student groups were also combined.

A composite score was arrived at by taking the number of returns indicated as most worth-while and subtracting

TABLE 4

1 It helps to develop an enquiring mind within the student.

2 It gives pupils a better understanding of technology.

3 It is a worth-while activity in itself.

4 It helps the pupil to become aware of his/her own mind.

5 It gives the pupil a basis for a career.

6 It helps to develop the pupil's personality.

7 It helps to develop patience in the pupil.

8 It is an important subject.

9 It gives pupils a better preparation for University or R.T.C. entrance.

10 It helps create an awareness of the place of Chemistry in the world.

11 It gives an awareness of the dangers of various substances.

12 It helps pupils to understand the everyday applications of Chemistry.

13 It awakens the inquisitive mind.

14 It develops an appreciation of the wonders of nature.

15 It helps the pupil to develop accuracy and precision.

16 It makes the course interesting.

17 It helps pupils to obtain a better Leaving Certificate result.

18 It shows how formulae are derived.

19 It helps to develop the pupil's manipulative skills.

20 It helps to develop scientific literacy.

21 It shows the difficulty of putting theoretical ideas into practice.

22 It helps the pupil to understand by using more than one sense.

23 It brings home the scientific method to the pupil.

24 It helps to develop powers of observation in the pupil.

25 It helps the pupil to understand Chemical theory.

26 It helps to develop the pupil's intellectual skills.

27 Some other reason (please state).

the number deemed least worth-while from it. This led to two lists, one for the teachers and one for the pupils.

Table 5 gives a list in order of popularity, of teacher responses to the question, "Why should practical work be done in the Leaving Certificate Chemistry Course?".

TABLE 5 Practical work should be done in the Leaving Certificate Chemistry Course because . . .

Option	
25	It helps the pupil to understand Chemical theory.
16	It makes the course interesting.
15	It helps the pupil to develop accuracy and precision.
23	It brings home the scientific method to the pupil.
1	It helps to develop an enquiring mind within the pupil.
10	It helps create an awareness of the place of Chemistry in the world.
12	It helps pupils to understand the everyday applications of Chemistry.
19	It helps to develop the pupil's manipulative skills.
24	It helps to develop powers of observation in the pupil.
21	It shows the difficulty of putting theoretical ideas into practice.
9	It gives pupils a better preparation for University or R.T.C. entrance.
22	It helps the pupil to understand by using more than one sense.
2	It gives pupils a better understanding of Technology.
20	It helps to develop scientific literacy.
5	It gives the pupil a basis for a career.
13	It awakens the inquisitive mind.
26	It helps to develop the pupil's intellectual skills.
11	It gives an awareness of the dangers of various substances.
18	It shows how formulae are derived.

. . . continued

TABLE 5 continued

3 It is a worth-while activity in itself.
7 It helps to develop patience in the pupil.
4 It helps the pupil to become aware of his/her own mind.
8 It is an important subject.
14 It develops an appreciation of the wonders of nature.
17 It helps pupils to obtain a better Leaving Certificate result.
6 It helps to develop the pupil's personality.

Table 6 gives a list, in order of popularity, of pupil responses to the question, "Why should practical work be done in the Leaving Certificate Chemistry Course?"

TABLE 6 Practical work should be done in the Leaving Certificate Chemistry Course because . . . .

Option

16 It makes the course interesting.
12 It helps pupils to understand the everyday applications of Chemistry.
25 It helps the pupil to understand Chemical theory.
9 It gives pupils a better preparation for University or R.T.C. entrance.
15 It helps the pupil to develop accuracy and precision.
23 It brings home the scientific method to the pupil.
10 It helps create an awareness of the place of Chemistry in the world.
11 It gives an awareness of the dangers of various substances.
2 It gives pupils a better understanding of Technology.
21 It shows the difficulty of putting theoretical ideas into practice.
1 It helps to develop an enquiring mind within the pupil.
22 It helps the pupil to understand by using more than one sense.

. . . continued

TABLE 6 continued

18 It shows how formulae are derived.

24 It helps to develop powers of observation in the pupil.

19 It helps to develop the pupil's manipulative skills.

5 It gives the pupil a basis for a career.

13 It awakens the inquisitive mind.

17 It helps pupils to obtain a better Leaving Certificate result.

8 It is an important subject.

20 It helps to develop scientific literacy.

3 It is a worth-while activity in itself.

26 It helps to develop the pupil's intellectual skills.

14 It develops an appreciation of the wonders of nature.

7 It helps to develop patience in the pupil.

4 It helps the pupil to become aware of his/her own mind.

6 It helps to develop the pupil's personality.

The Gulbenkian Foundation Report[2] gave teachers' and students' order of importance on objectives as follows:

TABLE 7

Teachers Order (6th Forms)	Students Order)
1 Observation	1 Interest and Reality
2 Elucidation	2 Elucidation (Clarification)
3 Finding out	3 Observation
4 Scientific thinking	4 Manipulative skills
5 Manipulative skills	5 Scientific thinking
6 (Verification)	6 Finding out
7 Reality	
8 (Problem solving)	
9 (Practical Examinations)	
10 Interest	

Boud *et al.*[3] found the following in their study of students, graduates and practising scientists:

TABLE 8 The five laboratory aims ranked highest by each response group

	Students	Graduates	Practising Scientists
To train students in making deductions from measurements and interpretation of data	x	x	x
To familiarize students with important apparatus and measurement techniques	x	x	x
To teach basic practical skills	x	x	x
To train students in observation		x	x
To foster critical awareness		x	x
To illustrate material taught in lectures	x		
To help bridge theory and practice	x		

It is noted that the two items considered most important at the advanced stage in the Gulbenkian Foundation Report, namely

1 The encouragement of accurate observation and careful recording;

6 The elucidation of theoretical work as an aid to comprehension;

both appear in the top three of the Galway teachers' choices and still appear in the top five (third and fifth) of the Galway pupils' choices.

The top Galway pupil choices correspond to the Gulbenkian Report introductory stage.

Thus while the teachers here view matters much as the Gulbenkian teachers did, the pupils, while still accepting the importance of these items, see interest and the understanding of everyday applications of Chemistry to be more important, just like the students in the Gulbenkian Report, a major difference being that the Galway teachers put interest very high on their listing while their English counterparts placed interest at the bottom of their listing.

It is noted that, as in the Gulbenkian Report, the Galway teachers' listing agrees very closely with that of Boud et al. for graduates and practising scientists, while, once again, the Galway pupils, while agreeing with the importance of some of these, see other items as being of more importance to them.

Apart from the twenty-seven options in the Opinionnaire a number of questions were given to the teachers in order to ascertain the amount of practical work done in the laboratories and the facilities available. They were also asked whether or not there were difficulties related to the practical achievement of any, or all, of the items listed as most worthwhile. If the answer to this was "yes", they were asked to state reasons why such was so.

Table 9 gives the response to the question, "How often do you have practical classes with your Leaving Certificate Class?"

TABLE 9 Provision of Practical Classes by Teacher Gender

How often do you have practical classes with your Leaving Certificate Class?	male teachers	female teachers
Weekly	6	5
Fortnightly	3	-
Monthly	5	2
More than one a term	1	1
Occasionally	1	6
Never	1	1
No information given	1	1

Only 45.2% of the teachers indicated that they were doing practical work at least once a fortnight. Thus over half the teachers take practical classes with their Leaving Certificate classes at greater than fortnightly periods.

Table 10 gives the results of four questions dealing with the facilities available to the schools.

TABLE 10

1 All the schools involved had laboratory facilities for Chemistry.

2 76.9% of the laboratory facilities have multi-purpose usage.

3 23.[illegible]% of the laboratories are inadequately, badly or very badly equipped.

4 53.8% of the schools spent less than £250 on Chemistry in the previous year.

Table 11 gives the results of four questions dealing with the teachers themselves.

TABLE 11

1 15.6% of the teachers were not scheduled for a double period in Chemistry.

2 18.2% of Chemistry teachers do not have Chemistry in their degree although all have it at first year college level.

3 27.3% of the teachers could be said to be inexperienced.

4 39.4% of the teachers have never attended a refresher course in Chemistry.

Table 12 gives responses to the question of difficulties in the practical achievement of the 'most worth-while' items.

TABLE 12

1 58.8% of the respondees indicated that lack of time was a factor in the achieving of practical work objectives.

2 23.5% of the respondees indicated that lack of equipment was a factor for the lack of achievement of the objectives.

3 11.8% of the respondees indicated that lack of funding was a factor in the lack of achievement of the objectives.

4 11.8% of the respondees indicated that the practical aspect of Chemistry was not catered for adequately by the Department of Education.

5 11.8% of the respondees indicated that the applications of Chemistry in Industry were not sufficiently emphasised in the Chemistry Syllabus.

6 5.9% of the respondees indicated that simple and quick experiments were not available.

7 11.8% of the respondees indicated that the size of the class was a factor in the non-achievement of the objectives.

. . . continued

TABLE 12 continued

8 5.9% of the respondees indicated that practical work wasted time for weaker pupils.

9 5.9% of the respondees indicated that the pupils were not mature enough for practical work.

CONCLUSION

The Galway teachers' and pupils' listings correspond closely to those from the Gulbenkian and Boud Reports. The big difference is perhaps the emphasis by both the Galway groups on interest as a most important objective.

The second question, "What is the present state of practical work in Leaving Certificate Chemistry"?, on investigation, leads to the following results:

1 No school under the vocational system (i.e. Vocational, Community or Comprehensive), in the County takes Chemistry to Leaving Certificate level either as Chemistry or as the joint Physics with Chemistry courses.

2 In contrast, of the thirty-one Secondary schools in the County, twenty-six took Chemistry to Leaving Certificate level while two others indicated their intention to introduce it in the 1982-83 school year.
Of the twenty six schools:
20 took Chemistry on its own;
4 took Physics with Chemistry on its own; and
2 took both Chemistry and Physics with Chemistry.

3 Only 45.2% of the teachers held practical classes in Chemistry at least fortnightly while only 33% held them weekly.

This cannot be accepted as being satisfactory and various reasons are given that can partially, at least, account for the present state of affairs.

- a 15.6% of the teachers are not scheduled for a double period in Chemistry.
- b 18.2% of Chemistry teachers do not have Chemistry in their degree.
- c 27.3% of the teachers could be said to be inexperienced.
- d 39.4% of the teachers have never attended a refresher course in chemistry.
- e 76.9% of the laboratories have multi-purpose usage.
- f 23.1% of the laboratories are inadequately, badly or very badly equipped.
- g 53.8% of the schools spent less than £250 on Chemistry in the previous sc hool year.

If one accepts the new Chemistry demand of 40% of time to be spent on practical work[1] then the actual practice falls very short of the ideal and thus the Statement in the White Paper on Education[4] "Experimental work . . . must be restored to its proper place in the teaching of Science in Schools", can now be quantified as follows:

Two-thirds of all the Chemistry teachers need to change their teaching in respect of practical work in order to place practical work in its proper place.

REFERENCES

1 An Roinn Oideachais Rules and Programme for Secondary Schools. 1983/84. (Dublin : The Stationery Office), pp. 213-214.

2 Gulbenkian Foundation Report. Educational Research, Volume 7, Number 3, (June 1965), pp. 195-196.

3 Boud, D. J., Dunn, J., Kennedy, T., Thorwley, R. "The Aims of Science Laboratory Courses: A Survey of Students, Graduates and Practising Scientists", European Journal of Science Education, 1980, Volume 2, Number 4, pp. 415-428.

4 White Paper on Educational Development. 1980, (Dublin : The Stationery Office, 1980), p. 52.

Irish Educational Studies, Vol. 4, No. 2, 1984.

ONLY CONNECT

REFLECTIONS ON AUTOBIOGRAPHY AND THE TEACHING OF LITERATURE

Tom Mullins

In a previous paper entitled 'They asked for a Story . . .'[1] I outlined the human person's need for coherent culture narrative. This paper seeks to demonstrate the key-role that personal narratives should play in education; the ultimate story that matters is the story we can tell about ourselves.

I

There is a great deal of uncertainty about the role of education in the modern world. In a society which is obviously in a state of fundamental transition education is being consistently challenged to justify its behaviour. Educationalists have responded with a wide variety of theories and schemes dealing with topics ranging from civics to computers and from linguistics to leisure-activities. In the midst of this frenetic activity there is a great danger that the human centre of education may move out of focus. The ultimate test of any educational activity is the degree to which the knowledge and skills become personalised in the life of the individual pupil or student. 'The process of education is not situated . . . in the observer but in we who undergo it'.[2]

Fostering understanding in any education context is not just a matter of technique and methodology; understanding is an onthological state, a new mode of being achieved by the individual self. Without such a qualitative re-orientation of the person's view of the world no educational activity worthy of the name is taking place. Knowledge cannot be equated with a quantitative increase in information; there is no knowledge from the intentions and needs of concretely-existing individuals. As W. F. Pinar remarks:

> We are not mere smudges on a mirror. Our life histories are not liabilities to be *exorcised* but are the very preconditions of knowing. It is our individual and collective stories in which present projects are situated, and it is awareness of these stories which is the lamp illuminating the dark spots, the rough edges. 3

Awareness of one's personal story, or an autobiographical perspective, is the *conditio sine qua non* of any educational process for the individual.

The path of self-knowledge has long been recognised in western culture as the way to the truth. In Platos 'dark cave' the person had to turn himself towards the light and the Delphic Oracle proclaimed that ultimate wisdom of 'Know Thyself'. In the Christian era, St. Augustine continued the tradition of self-reflection in the *Confessions*: after a long silence the autobiographical mode became evident again in the Renaissance, most markedly in the writing of Montagne. He wrote his humanistic essays as a continuing study of himself. He declared 'As for me I turn my gaze inwards, I fix it there and keep it busy . . . I have no other business but with myself'.[4]

The development of historical consciousness in the eighteenth century gave rise to an interesting volume of autobiographical writing throughout the nineteenth century. William Dilthey declared 'Autobiography is the most instructive form in which understanding of life comes before us'[5] and Hegal asserts that the 'consciousness of self is the birth place of the truth'.[6]

Ernest Cassirer has summed up the characteristic stance of Western philosophical thought in the following words:

> That self-knowledge is the highest aim of philosophical inquiry appears to be generally acknowledged. In all the conflicts between the general philosophical schools this objective has remained invariable and unspoken; it proved to be the Achimedean point, the fixed and immovable centre of thought. [7]

Other evidence for the central place given to self-awareness in western culture is not hard to find. It is demonstrated, for example, in the continual self-portraiture of such artists as Rembrandt and Van Gogh; poetry, since the mid-eighteenth century to the confessional verse of Lowell and Berryman testifies to the same belief. Seamus Heaney has remarked on poetry 'as revelation of the self to the self',[8] and his poem Personal Helicon declares the intention of his poetic activity, '. . . I rhyme/To see myself, to set the darkness echoing'.[9]

The autobiographical mode, the rendering of self into view has been a growing preoccupation of western man over the centuries. Education, while it has acknowledged in theory the imperative of such a sustained historical tradition has effectively ignored it in practice at a cost on which it is frightening to speculate.

In this matter of self-awareness one intractable problem does arise. What exactly is meant by the word 'self'? This area is a minefield of contradictory definitions arising from different disciplines and even within the same discipline there is much disagreement.

Freud in the Interpretation of Dreams suggests the 'self' is pre-existent.

> The self is always already in existence . . . each slip of the tongue, or lapse of the memory, illuminates a past discourse, a text elaborated long ago which governs all subsequent moments of textual making. 10

Thus the self for Freud is a hidden-pre-determined, although not unchanging, framework which reveals its presence in flashes into our consciousness and quite frequently exists in conflict with our normal self-concept.

On the other hand Jung can assert that there is no such thing as the static 'self'; 'self; if it exists is a process, an evolutionary development towards an indeterminate end. He states,

> So are I have found no stable centre or definite centre in the unconscious and I don't believe such a centre exists. I believe that the theory which I call the self is the ideal centre . . . and it is probably equivalent to the maximum natural expression of incividuality in a state of fulfilment or totality. As Nature aspires to express itself, so does man, and the self is that dream of totality.
>
> The self . . . is a cricle whose centre is everywhere and whose circumference is nowhere. 11

Friedrich Nietzsche proclaimed in classic extentialist form that the self and its world must be constructed by the individual acts of will. Each one must make himself through the 'will to power'. 'You want to create the world before which you can kneel: this is your ultimate hope and intoxication.'[12] Obviously there is no end to this process although there must be some characteristic direction and it is in this characteristic direction the self realises itself.

Whatever about the disagreements of psychologists and philosophers about the nature of 'self', few of us will deny that 'self' is a phenomenological reality in our lives; we do have a sense of a chameleon-like centre which we call 'I'. Past experiences have a unique shape and presence in our awareness. This shape or more accurately these trends and patterns in our memory give a sense of the personal experiencing self, they indicate what we have been, what we are and what we may become. Fundamentally it does not matter whether the 'self' pre-exists or is a possible end-product or is made by acts of will, what matters for a sense of 'self' is a sense of the continuity in experience. As Unamuno asserts, 'Memory is the basis of individual personality, just as tradition is the basis of the collective personality of the peoples'.[13]

The 'self' changes, develops, hides and reveals different facets in an endless dynamic but there is a persistent 'mode of attention' which manifests itself amidst the cumulative of selective activity of the memory.

This 'mode' is encountered most obviously in the specific atmosphere which pervades each individuel's interiority - it is the scent of the 'self': it is in G. M. Hopkins' 'that taste of myself' or Otega Y Gasset's 'murmuring counterpoint in our entrails'. As all these poeticisms suggest there is a strong visceral component in self-awareness. I become conscious of the uniquely experiencing 'self' in visceral sensations related to emotional states. Thus the 'butterflies' before a date or the 'gnawing' in the face of a difficult decision proclaim the individualistic contours of my consciousness.

We do not arrive at self-knowledge intuitively, it is slowly acquired through work and effort.

> . . . all self-knowledge must be learned, that it is learned in a speech community, and that it is only in those speech communities that place a high value upon self-knowledge that any description of the self becomes possible. [14]

I suggest that any educational context should present itself as such a speech community and foster self-knowledge in students by encouraging them to write frequently in an autobiographical mode. Individuals should be introduced to a mode of reflecting on memory, of contemplating what constitutes their interiority so they may encounter their own reality. To misquote E. M. Forster 'Unless I see what I say I cannot know who I am'.

But the thrust of education over the last number of decades has been dictated by other concerns. The dominant economic and commercial values of our society have pervaded education so that now we have a system which is largely dominated by achievement and competition. This external orientation has led to the impoverishment of the lives of many people: there seems to be a frantic search for the 'me' going on throughout society. All are looking for in Sylvia Plath's phase, 'A brief respite from fear of total neutrality'.[15] The search manifests itself in the usual ways: promiscuous sex, mindless violence, drug addiction and esoteric cults all play their destruvtive roles. The vacuous quality of many young peoples' lives is suggested by Philip Larkin in the ironic tone and rhythm of his poem High Windows.

> When I see a couple of kids
> and guess he's fucking her and she's
> Taking pills or wearing a diaphragm,
> I know this is paradise.
>
> Everyone old has dreamed of all their lives -
> Bonds and gestures pushed to one side
> Like an outdated combine harvester,
> And everyone young going down the long slide.
> To happiness, endlessly . . .[16]

The cultural structures which traditionally gave a sense of identity, family, nation and church are all besieged. There are no heroes anymore, those that manage to survive are consistently viewed with irony and ambiguity. 'Merleau-Ponty's statement "I distrust heroes" finds support in a world where man's literature seems to suggest that he sees his best reflection in the fragments of the anti-hero.'[17]

Young people are not lacking in energy, imagination and drive. Such attributes are indigenous at their stage of life. What they lack is a context in which these attributes can be creatively channelled so they can come to appreciate their own worth and cherish themselves.

They need to cultivate 'the sentiment of being' as Lionel Trilling suggests in his study Sincerity and Authenticity. The 'sentiment of being',

> . . . is the sentiment of being strong, which is not to say powerful. Rousseau, Schiller, Wordsworth are not concerned with energy directed outward upon the world as aggression and dominance but rather with such energy as contrives that the centre shall hold and that the circumference of the self keep unbroken, that the person become an integer, impenetrable, perdurable and autonomous in being if not in action. 18

The sense of 'I am' which lies at the heart of this notion of 'the sentiment of being' closely relates to the idea of the continuity of experience, which was highlighted earlier as the essence of self-hood. Both ideas suggest a sense of a surviving wholeness in the midst of change and an independence in experience which denotes a unique quality of interiority.

So from two different perspectives, the dictates of a long and fruitful culture tradition and the exigencies of the contemporary cultural situation the cultivation of self-knowledge which appear to be an imperative in any educational context that merits the name educational. As Peter abbs has remarked 'The educational act and the autobiographical act are one and the connexion has not been properly forged'.[19]

II

Autobiographical writing should not be equated with the recording of the mundane events of a person's life. It is not to be seen as an adult version of the 'diary activity' of senior infants' classes, 'Today is Tuesday. It is wet. My doll is sick.' The sense of autobiography intended here is not a species of personal journalese but a selective reviewing and recording of some past events in one's life. As Gusforf remarks in his essay The Condition and Limits of Autobiography, 'Autobiography assumes the task of reconstructing the unity of a life across time'.[20] Faithfulness to the facts is of secondary importance, 'the truth of the facts is subordinate to the truth of the person'.[21] Autobiography is, therefore, a kind of fection, a necessary personal fiction, a story whereby we are enabled to look back on our past, construct a life and begin to delineate a self.

Alfred Kazin, referring to the self as history, states:

> One writes to make a home for ourself . . . to write is to live it again and in this personal myth and resurrection of our experience, to give honour to our lives.[22]

Autobiographical writing involves an encounter with time and with words. One seeks to distill out of time through the processes of language a symbolic discourse which will amount to a personal mythos, what James Olney calls 'a metaphor of one's own self'.[23] This mythos or metaphor will be redolent with the specific atmosphere which characterises the self and will, in Coleridge's coinage, 'thingify' the mode of attention which pervades the self.

In encountering time the individual needs to distinguish between 'inner' time and 'outer' time. Each of us is phenomenologically aware of the relativity of time: when some experience matters personally then time hurries on, when our interest is not engaged the minutes seem endless. Our personal sense of time is related to the manner in which we orientate ourselves towards experience, it arises from the rhythm of our innermost being, it is an expression of the dynamic of the self.

But in this age there is little respect shown for this inner rhythm, for this sense of personal time. Chronological time, measured out with increasing accuracy, dominates our lives both at work and at play: our lives are rationed in time allowances with little acknowledgement given to the personal significance of various experience.

Chronology levels experience; we are borne furiously along on the stream of time, occasionally when something happens that should matter and does matter it gets swept along with the trivial and the insignificant. Eliot makes the point in The Four Quartets, 'we had the experience but missed the meaning'.[24]

The human psyche does not operate according to the precise movements of digital watches. The personal rhythm has its own patterns which the individual should seek to discover and respect:

> At the heart of each of us . . . there exists a silent pulse of perfect rhythm - which is absolutely individual and unique, and yet which connects us to everything in the universe. The act of getting in touch with that pulse can transform our personal experience and in some way alter the world around us. 25

It is in the context of this personal rhythm there occurs in each human life 'those moments big as years'. The instances in which the individual sensibility realises and appreciates something about itself and its place in the universe. It is such moments make nonsense of chronology and establish the independence of feeling, of symbolising, of myth-making in the personal self.

Wallace Stevens has captures the idea of such moments in his poem Perhaps.

> The truth depends on a walk around the lake,
> A composing as the body tires, a stop
> To see hapatics, a stop to watch
> A definition growing certain and
>
> A wait within that certainty, a rest
> In the swags of pine-trees bordering the lake.
> Perhaps there are times of inherent excellence,

As when the cockcrows on the left and all
Is well, incalculable balances,
At which a kind of Swiss perfection comes.

And a familiar music of the machine
Sets up its Schwarmerai, not balances
That we achieve but balances that happen,

As a man and a woman meet and love forthwith.
Perhaps there are moments of awakening,
Extreme, fortuitous, personal, in which

We more than waken, sit on the edge of sleep,
As on an elevation and behold
The acedemies like structures in the midst.[26]

Such incidents need not always have the metaphysical, semi-mystical perspectives implied in Stevens' poem and as are found repeatedly in the poetry of Hopkins and Wordsworth. They can be concerned with relationships; Brian Friel's, Philadelphia Here I Come testifies to this in the different recollections of the characters about the significant moments of their life together as father and son: or these incidents can deal with natural inevitabilities as in Heaney's poem, Blackberry Picking

. . . Once off the bush
The fruit fermented, the sweet flesh would turn sour.
I always felt like crying. It wasn't fair
That all the lovely canfuls smelt of rot.
Each year I hoped they'd keep, knew they would not.[27]

Such moments of insight and illumination can range over all the fundamental issues which matter at different stages of life or issues which last throughout a lifetime. These moments are important because they haunt the mind of the individual. They constitute symbolic centres which merit exploration and expression, they constitute the poetry of each person's life, the mythical statement of aspects of the self: they are the central 'stuff' of autobiography. By recording these we rescue the self from the anonymity of experience and give recognition to its unique perspective.

But attuning ourselves to the poetic in our lives is just the beginning of the autobiographical act, a stern challenge arises when we are faced with the task of selecting and shaping words to express this poetic. For as Eliot declared

> . . . And so each venture
> Is a new beginning, a raid on the inarticulate
> With shabby equipment always deteriorating
> In the general mess of imprecision of feeling,
> Undisciplines squads of emotion . . . 28

The language of everyday life is cliched in words, thoughts and feelings. Heidegger gave the name 'de-rede' to this inauthentic language which he said 'has been uprooted existentially and this uprooting is constant'.[29] Cliches have lost their vital relationship with Being and thus frustrate the expression of the self and its poetic.

The language which the self should seek Heidegger called 'rede'. This language arises out of the felt needs of the individual person; it consists of words which attempt to recreate or express the curve of feelings and thoughts, the self related to particular experiences. The individual, writing autobiographically, must search for his 'rede' for as Buber asserts 'the existence of the I and the speaking of the "I" are one and the same thing'.[30]

The finding of the 'rede' is not a once-off effort, 'each venture is a new beginning'. The most direct way to the 'rede' is through honest recording, letting the pattern of events, thoughts and feelings as it were speak for themselves. The pattern which the individual perception has placed on the incidents will gradually emerge and suggest the particular symbolic construct the self finds there. Autobiographical writing should aim for the specific, the sensuous and the immediate; for it is the concrete detail, the sensuous trace of memory, that is the key to the self. Proust had some success with the small of the madeleine!

Autobiographical writing, however, should not be seen as being guided by literary conventions; this could grandly foster inauthenticity in affectation of style and manner. Furthermore the autobiographical act is not addressed to an audience, it is not written for performance but primarily for expressive purposes - it is written for its own sake.

> We write autobiography for ourselves in order to cultivate the capacity to see through the outer forms, the habitual explanation of things. It is against the taken for granted, against routine and ritual we work for it is the regularized and the habitual which arrest movement intellectual and otherwise. 31

Much literary study is failing to achieve its educational objectives because little attempt has been made to nurture autobiographical approaches. The emphasis on critical discussion and thus the necessity for the student to learn the terminology of critical analysis frustrates the growth of individual response. In writing about literature many students adopt a pretentious style rife with terms which hold little personalised meaning; alternatively they indulge in hyperbold attempting to give conviction to an unfelt learned response. Both are exemplars of Heidegger's 'ge-rede' - the language of inauthentic being.

A prime objective in the teaching of literature should be to help each individual to become aware of the poetry of his own life and encourage him to cultivate an authentic

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language for his 'self-hood', his 'rede'. This objective should take precedence over all others such as literary appreciation, awareness of tradition and critical assessment: all these will follow if the poetry of the self is at the centre of the educational activity for then the individual will feel inside the literary and poetic context and not outside as is the usual feeling today.

III

Creative approaches to the teaching of literature have been advocated for quite some time now. In practice these theories have had little lasting effect on the teaching of literature. The indigenous conservation of the teaching profession allied with relentless examination pressure present stern opposition to innovation and experiment. The term 'creative' has now unfortunately become suspect to many who might have been initially quite sympathetic to its import and implications. The reasons for this are quite apparent.

For some, the term 'creative' had originally an infallibility of direction in education which led eventually to its undoing. 'Creative' apparently implied unlicensed freedom for the student to do as he pleased; it became a context in which much trivial activity was justified because it was thought of as being 'creative', e.g., undisciplines illiterate writing, and formless dramatic improvisation. Although such activities released energy and encouraged spontaneity, frequently they lacked any fundamental overall direction.

From another perspective the term 'creative' has taken to itself an elitist, 'arty' meaning. It has become identified in some teachers' minds as being an appropriate term only for the work of a gifted minorith, despite David Holbrooks's best efforts. Creative writing in particular is seen as writing intended for an audience, a type of personal verbal performance.

The kind of approach to literary education advocated here while it is certainly in the 'creative' field aims at avoiding such mis-educational factors. Autobiographical writing is not for performance, it is primarily done for the value of the process to the self and the relationship it can establish between the self and literature. Furthermore it is a mode of personal exploration and expression available to all.

> Autobiographical writing is the only democratic art attainable in our schools, the only art that will give pleasure in the appreciation of literature as well as self-expression for a whole life-time. [32]

But when can one realistically expect from pupils and students in this area? Obviously expectations change with age, but generally short well realised accounts of moments they wish to recall should be the objective presented. The teacher will have to orientate the students towards the kinds of experience most valuable in this context (the nature of these have been already outlines). Suggesting this kind of writing, unless careful preparations are made, will be greeted initially with apathy and the inevitable chorus 'I have nothing to write about!' Students may be loathe to leave behind the secure neutral exercise of the academic essay on Milton's diction or the cool discursive regions of such essay subjects as *Poverty* and *Friendship*. Within a short time however they welcome the change, finding a new satisfaction in writing that is of obvious significance to them.

The traditional relationship between teacher and pupil must be radically changed to create an environment in which such personal writing can flourish. The teacher must shed his role of instructor and assessor and instead attempt to develop a more transactional relationship with his charges. A key way of initiating such a dialogue is for the teacher to reveal some details from his own autobiography. Such personal story-telling always nurtures response eventually, even in the most recalcitrant. The following sketch would be typical of the kind of story needed.

> As a small boy of five I was fat and round in appearance. This caused no great difficulties except when I was running down the steep hill that led to the infant school. The gradient frequently became too much for short legs and I inevitably tumbled. I was rarely hurt but anxiously I would scramble to my feet and hope it hadn't happened. Soon a tell-tale, wet feeling high on my back brought the fateful news, the bottle of milk for lunch had spilled again!
>
> Like all small children I regularly lost the top of the milk-bottle. Mother in desperation gave up searching for tops in the mayhem of the mornings and instead was wont to stuff the top of the bottle with a plug of newspaper! This worked fine while the bottle stood upright, but once I tumbled the careful arrangement was disturbed, the bottle fell sideways, the plug of newspaper loosened and the milk flooded joyfully into the recesses of my school-bag.
>
> At school I'd extract dripping books and copies now having milky fluted edges. In the puddle of milk at the bottom of the bag would float pencil parings and curls of rubber: my sandwiches also had that sad look which betokened a most unpleasant sodden lunch of milky-bread.
>
> Thus I learnt that things which I thought mine, things which were an inevitable part of my life and therefore should be kind to me, like a milk-bottle and sandwiches were not really on my side. They led a life of their own, they were not to be trusted, they didn't came about me at all.

A simple narrative like this should set the students reflecting on their childhood experiences. The child instinct to animate objects, to give them an identity either hostile or friendly will find an echo in their own memory and should provide some direction for their first attempt at autobiographical writing.

Another way of cultivating in the students a respect for their own experience (to help them to see, in Camus' words, that, 'We are all special cases') is to introduce them to a series of readings in literature which celebrate the immediate and the mundane, which create an accessible and recognizable private mythos as found in the poetry of Kavanagh, Heaney and Frost. Students respond enthusiastically to Kavanagh's clear assertion of faith in Shancoduff and Ballyrush, in his belief that 'Gods make their own importance'.

The following passages are excerpts from students' autobiographical writings. They manifest much of what has been claimed here for the value, both personal and literary, students may reseive from an autobiographical perspective in literary studies.

My Own Place

> A loose plant on the second last step of the stairs, still faithfully announces the early riser. Creaking with a lush sound of a plant full of history, of stories, unimaginable to the people who live there.
>
> The worn carpet on the floor of the master-bedroom; warm, a joy to stroll across with bare feet. At Christmas it is the first battleground for new soldiers, a warm garden for a sister's doll.
>
> The leaking tap in the ground-floor toilet, drip drip, through countless visits. The rusty stain on the sink could tell of many things. The false grandeur of the drawing room, not much used;

behind the dresser the damp takes the paper off, and yet that room is warm.

The flag-stones on the hall floor, marred and chipped from the stilletoes of the fashion game. To the children the hall is a hostile place of 'How do you do's'. And when they have gone, toy cars and trucks cause havoc speeding through to another room. At Christmas, the only time the front door is opened, an Artic world, where last year's toys are left to die.

At five in the evening the red tiles on the kitchen floor are covered in the day's dust. At six it is swept. It returns during the next day, the same dust at the same hour: it will always be there. That kitchen, that house, my place is so warm. It can never change, I know it must.

(Joe O'Flynn, 16)

My Favourite Place

I hated our school church at mass. It was bright and gaudy. Everyone looked out of place. All the lights, carefully positioned for effect, would have done an art gallery proud. Behind and above the congregation was the organ gallery, full and blaring with an open-mouthed school-girls' choir.

At night, alone, I visited the church. It was cool and aloof. The statues hit behind pillars and candles dipped and flicked their light. It was ominous and quiet. Everything loomed. Good seemed present. This was no startling discovery, just a normal awareness.

All the colours accentuated in festivity were now blended with the background. Every noise sank sank back into the silence.

(Kate Mahony, 17)

On The Edge

Crosshaven was the same. The imaginary fiesta streamed down from the hill streets and gathered in general tumult in the square.

> It had been give months since I had seen Jaci and Kevin. In those five months I had not wished to see anyone. School was just a goad for rising in the morning and a reason for going to bed at night.
>
> But when I stepped inside that house it all seemed to change. There were no doubts, no depressions and my cynicism became a shadow confronted by the brightness of their love. We talked and we laughed and we ran and we walked and we slept. I enjoyed the strenuous work at the back of the house, breaking rock work at the back of the house, breaking rock and wheel-barrowing it away to build walls.
>
> Within a week the light dimmed. I felt like shouting at them 'You don't know me. You don't know how I feel'. I was disturbed by a sense of unreality, I could no longer attune to their mood. When I looked around the world was faint and thin. The dark caves across the Lee estuary loomed in their silhouettes. They looked like the entrance to another world, momentarily forgotten . . .
>
> (Barry Greene, 16)

The title of this paper is taken from E. M. Forster's novel, *Howard's End*. The rest of the paragraph in which the phrase occurs is significant in relation to the direction of the thought in this paper.

> Only connect the prose and the passion and both will be exalted and human love will be seen at its highest . . . Live in fragments no longer. 33

Frequently in literary studies the student encounters a range of literature in a highly academic context which seldom touches his sensibility in any worthwhile manner. A lack of confidence in the value of his own feelings and personal experience results in a subservience before the canonised text which frustrates the transactional relationship, the essential constituent of a literary response.

Teachers of literature (at all levels of education) should aim to connect the 'prose' of the text with the 'passion' of the students' own interior world. A valuable way for initiating and developing this connection is through autobiographical acts: literary studies might then achieve a coherence and integrity in the students' personal life which is rarely achieved today.

NOTES

1 T. G. Mullins "They asked for a Story", *Irish Educational Studies*, Vol. 3, No. 3, pp. 61-75, 1983.

2 W. F. Pinar, "Whole Bright, Deep with Understanding: Issues in Qualitative Research and Autobiographical Method", *Journal of Curriculum Studies*, 1981, Vol. 13, No. 3, pp. 173-188, p. 183.

3 Ibid., p. 184.

4 M. Montaigne, "Of Presumption", *Essays* 11. 17, *Great Books of the Western World* 25, (Chicago : Encyclopaedia Brittanica, 1952), p. 320.

5 W. Dilthey, *Gesammelte Schriften*, VII, 199-200 quoted in H. A. Hodges, *The Philosophy of W. Dilthey*, (London : Routledge & Kegan Paul, 1952) p. 275.

6 F. Hegel, quoted in G. Gusdorf, "Conditions and Limits of Autobiography", *Autobiography : Essay Theoretical and Critical*, ed. J. Olney, (Princeton : Princeton University Press, 1980), p. 38.

7 E. Cassirer, *An Essay on Man*, (New Haven : Yale University Press, 1944), p. 1.

8 S. Heaney, "Introduction to His Poems" in *Here and* Human, ed. F. Finn, (London : John Murray, 1976).

9 S. Heaney, *Death of a Naturalist*, (London : Faber, 1966), p. 57.

10 M. Sprinker, "Fictions of the Self : The End of Autobiography" in *Autobiography*, ed. J. Olney, p. 342.

11 C. G. Jung, quoted as epigraph in E. Garzilli, *Circles Without Centre*, (Harvard University Press, 1972).

12 F. Nietzsche, "Of Self Overcoming", *Thus Spoke Zarathustra*, (Penguin, 1968), p. 136.

13 Miguel de Unamuno, *Tragic Sense of Life*, trans. J. E. Crawford Flitch, (New York : Dover, 1954) p. 9.

14 H. C. Shands, "The Hunting of the Self : Towards an Genetic Affectology", in Toward a Theory of Psychological Development, ed. Sohen and Celia Modgil, (Windsor : N.F.E.R., 1980), p. 81.

15 S. Plath, "Black Rook in Rainy Weather", The Colossus, (London : Faber, 1972), p. 43.

16 P. Larkin, "High Windows", High Windows, (London : Faber 1974), p. 17.

17 E. Garzilli, Circles Without Centre, p. 3.

18 L. Trilling, Sincerity and Authenticity, (Oxford Paperbacks, 1974), p. 99.

19 Peter Abbs, "It's autobiography . . . but is it a legitimate form of study?", Times Higher Education Supplement, No. 471, 13 November 1981, pp. 10-11.

20 G. Gusdorf, "Conditions and Limits of Autobiography", p. 37.

21 Ibid., p. 44.

22 A. Kazin, "The Self as History", The American Autobiography, ed. A. E. Stone, (New Jersey : Prentice Hall, 1981), p. 43.

23 J. Olney, Metaphors of Self, (New Haven : Princeton University Press, 1973), p. 332.

24 T. S. Eliot, "The Four Quartets", Collected Poems and Plays, (London : Faber, 1964), p. 186.

25 G. Lonard, The Silent Pulse, (London : Wildwood House, 1979), p. xii.

26 W. Stevens, Collected Poems, (London : A. Knopf, 1955), p. 386.

27 S. Heaney, Death of a Naturalist, p. 20.

28 T. S. Eliot, Collected Poems and Plays, p. 182.

29 M. Heidegger, Being and Time, Trans. J. Macquarrie and E. Robinson, (Oxford : Blackwell, 1973), p. 214.

30 M. Buber, I and Thou, trans. R. G. Smith, (Edinburgh : Clarke, 1966), p. 14.

31 W. F. Pinar, "Whole, Bright, Deep with Understanding", p. 184.

32 D. M. Wolfe, "Autobiography : The Gold of Writing Power", *English Journal*, 60, October 1971, pp. 937-946, p. 939.

33 E. M. Forster, *Howard's End*, (London : Arnold, 1910), pp. 183-184.

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INTRODUCING IRISH CULTURAL STUDIES TO THE ENGLISH PRIMARY SCHOOL

Tom Arkell

Multicultural Education

Until recently it was the normal practice to assume that the children of immigrants who remained in Britain should be brought up in a way similar to those whose parents were British. If the children of immigrants were to develop any sense of dual identity, their families were entirely responsible for preserving and transmitting a knowledge of any concern for their roots. Many immigrants were Europeans (often Jews) who had fled from political, racial and/or religious persecution and their gratitude for acquiring a safe home in Britain often involved an acceptance of this fundamental philosophy of absorption.

The image of the British which most schools purveyed to their young was of a white and Protestant people, most of whom were descended from the Anglo-Saxons and who preached and practised the virtues of democracy, thrift, hard work, the uneven distribution of resources, male dominance and so on. Of all the factors which have combined during the last generation to undermine such a monolithic stereotype, the arrival of many coloured immigrants in the 1950s and 1960s has probably been the most powerful. From 1955 to 1960 about 40,000 coloured immigrants arrived every year from the 'new' Commonwealth, mainly the Caribbean, India and Pakistan. Then the number trebled in 1961 before coloured immigration was curbed drastically by legislation in 1962 and subsequent years. By 1981 the census recorded 2,750,000 people (5 per cent) living in Britain who had been born outside the British Isles. Nearly half of these came from the New Commonwealth. Altogether 625,000 had been born in the rest of Europe, 630,000 in India, Pakistan and Bangladesh and 300,000 in the Caribbean. Of those from the New Commonwealth, 60 per cent had settled in the South East and nearly 12 per cent in the West Midlands.

The education authorities where most of these immigrants settled took some time to appreciate the need for adapting their traditional policy towards assimilating immigrant children. Eventually the philosophies and curricula of many schools with a significant number of immigrants were altered, especially when the children's mother tongue was not English and their faith was not Christian. This policy of multicultural education was also extended to children of West Indian origin when it was realised that they had substantial problems of cultural adjustment even though most were Christian and spoke a form of English at home. In a country without a national education system, attempts to devise various programmes of multicultural education were almost inevitably ad hoc and usually made little impact on schools with very few immigrants even when they were designed to promote racial harmony. Initially, they were called multiracial and were concerned chiefly with the language and religion of coloured people and with racial prejudice against them. However as more cultural dimensions were added, definitions of multicultural education became more vague and elusive and raised some doubts as to how much non-British whites should be included.[1]

The Irish in Britain

The position of the Irish-born living in Britain has always been somewhat ambivalent. For well over a a century from the 1830s they had migrated to Britain in relatively large numbers and to the Victorians most of the Irish had appeared as a race apart, being instantly recognisable by a combination of their speech, appearance, customs and Catholic religion. They had accordingly encountered many of the attitudes and prejudices reserved for foreigners and yet, until the Irish Free State left the United Kingdom in 1922, none of them could be treated technically as immigrants.

Conversely, in the years since 1922 and especially since 1949 when the new Republic of Ireland finally left the British Commonwealth, the British government resolutely refused to treat the Irish as foreigners and continued to allow all Irish citizens in Britain to enjoy the same privileges as British subjects and to impose virtually no restrictions on travel between the two countries. The principal explanation for this policy was neither instinctive British generosity nor a guilty conscience, but the open nature of the Northern Irish border and the determination of those on both sides not to alter it. This was reflected by the fact that most people in Britain regarded the Irish as homogeneous and so made virtually no distinction between their 'fellow countrymen' from the North and the 'foreigners' from the Republic.

The census enumerators showed greater discrimination and recorded in 1981, for instance, a total of over 600,000 Irish-born from the Republic living in Britain and nearly 250,000 from Northern Ireland. Half of those from the Republic had settled in the South East of England, but only one-third from the North. In addition, approximately one-eighth of both groups were to be found in each of the West Midlands and the North West and one-seventh of the Northern Irish in Scotland. However these figures do not represent the full scale of the Irish penetration into Britain. Kevin O'Connor estimated in 1972, for instance, that there were about four million people living in Britain of immediate Irish descent - that is second and third generation Irish as well as first.[2]

It would of course be wrong to suggest that all who came originally even from the 26 counties retained an acute sense of Irish identity. For various reasons many of these second and third generation Irish came to regard themselves, and were accepted, as predominantly British. And yet, there were vigorous Irish committies in London, Birmingham, Manchester and other towns where the Irish had settled in substantial numbers. Their presence was manifested most clearly by their social, cultural and sporting clubs and their many associations with the Catholic church. For most of their children the Irish dimension at school was restricted to little more than the occasional St. Patrick's day assembly and a few Irish songs. Indeed, the presence of the Irish in Britain was usually ignored almost as much as Ireland itself in the curriculum of the schools which they attended. This may appear surprising since a high proportion of these schools were Catholic institutions. And yet, it was precisely because the vast majority of the Catholics in Britain were of Irish descent that their hierarchy was so keen that their church should be seen in Britain as the international one which it was and not as an Irish ghetto.

During the 1960s events appeared to justify this policy. In the opinion of Kevin O'Connor, "The decade of 1960-70, marking the end of a century of relentless Irish immigration to Britain, marked also the beginning of a decade more fruitful for the Irish than any other time in the previous century's diaspora". Many of the Irish were encouraged by higher levels of education and living standards "to involve themselves more productively in the life of their adopted country". Other factors identified by O'Connor were political peace between the two countries, the decline of imperial attitudes in Britain, the reduction of the gap in earning-power between the working- and middle-classes and other egalitarian changes. "As an immigrant people in the Britain of the sixties they (the Irish) were less subject to hostility, and more the object of tolerance - if not affection - than at any time in the long history of their diaspora to Britain".[3] To O'Connor's explanations one should probably add two more. The very sharp decline in the net migration rate to Britain from the Irish Republic, which fell from over 40,000 per annum throughout the 1950s to 16,000 per annum in the early 1960s, helped to encourage those who stayed to regard themselves as more permanently resident in Britain. And the simultaneous influx of coloured immigrants from the 'new' Commonwealth made it easier for the Irish in Britain to identify more with the British and to regard multi-cultural education as something designed for others but not for themselves.

This apparently comfortable situation was changed rapidly in the early 1970s by the tragic series of events in Northern Ireland and the IRA's sporadic attempts to spread the violence to mainland Britain. Most Britons had little real understanding of the causes of the fighting in Ireland and could rarely distinguish between different kinds of Irishmen so that when their own lives and safety were threatened they knew that at least a vocal minority of the Irish in Britain supported violence or the threat of violence as an acceptable alternative to traditional political methods and this inevitably produced a sharp revival of prejudice against the Irish and mistrust of those who spoke with an Irish accent. Since the overt causes of this tragic situation were political, very few schools responded by extending their programmes of multicultural education to include the Irish.

EEC

During the early 1970s the hope was sometimes expressed that the decisions by the Republic of Ireland and the United Kingdom to join the EEC would somehow help resolve the civil strife in Ulster. Such pious hopes were never fulfilled, but one very minor consequence of this expansion of the EEC was that the Directive of 1977 on the Education of the Children of Migrant Workers applied to both countries. According to Article 3:

> Member States shall, in accordance with their national circumstances and legal systems, and in cooperation with States of origin, take appropriate measures to promote, in coordination with normal education, teaching of the mother tongue and culture of the country of origin for the children of compulsory school age dependent on migrant workers from another member state.

Clearly Irish children studying in British schools had no special need to learn their mother tongue but a strong case could be made for teaching them something about Irish culture. In 1979 therefore the University of Warwick applied to the EEC for funds for a pilot project on Irish Cultural Studies, fully supported by the Coventry LEA which was already greatly experienced in multicultural education. This initiative was supported by the DES and the Department of Education in Dublin, approved in

1980 and launched in 1981.

First Irish Cultural Studies Project 1981-2

The main aim of the first project was to explore which Irish themes or topics were most suitable for teaching 9 - 11 year-old children in English primary schools and how they could be integrated most effectively into the schools' normal curriculum. It also examined the material that was available in England and Ireland for teaching these themes and concluded that very few books could be used unaltered with this age range.

During the year two teachers taught part-time on the project, working with the teachers of seven classes in three different Coventry primary schools and also making valuable contacts with various schools in Ireland. All the Coventry classes contained significant proportions of Irish children, but they were never taught separately from the non-Irish children. Most of the work they tackled successfully and with much enthusiasm either explored their own family histories or the Irish cultural heritage - in particular music, dance, art, stories, drama and the achievement of the Celts.

Attempts to cover later aspects of Irish history and migration and to introduce the children to Irish society and topography today were much less successful. In part, this was because almost all the available material was over detailed, but in addition most of these topics bear little relevance to the children's own experience of life and so are not easy to teach.

The report on this first project therefore argued the need for a successor that would concentrate on developing a well-balanced package of readily accessible teaching materials for all these themes, suitable for use with the topic work approach that is now common in English primary schools.[4]

Second Irish Cultural Studies Project 1983-4

This second project began in 1983 and was aided by three further exchange visits between teachers in Coventry and Dublin, but its principal concern remained the development of a wide range of sample materials for use in English primary schools together with some guidance and suggestions for teachers on alternative strategies for teaching Irish studies.

These materials have been grouped together under three headings: Finding out about Ireland Today, The Irish cultural heritage and Irish Migration. Almost all of them have grown out of the ideas, initiatives and first drafts of the many experienced teachers who have been associated with the project. The intention is not to provide a self-contained course on Irish studies but a wide range of materials with a strong potential for eliciting an effective response that can be used with great flexibility either on their own or as part of a more detailed Irish studies topic or compared with aspects of other cultures. By far the greatest challenge has been posed by attempts to present life in Ireland today in a form that will be appealing and intelligible to young children who have never been there. As yet this is still unfinished and during the next year the project's work will be supplemented by the development of further material for this section.

The rest of the project material will be ready for distribution to teachers in a number of selected schools at the start of the next academic year (1984-5). It is intended that it will then be revised in the summer of 1985 in the light of their experiences and so be made ready for wider distribution. While every effort has been made to create material suitable for most 9 - 11 year-olds, it is appreciated that those with special needs have not yet been catered for. However, much of the material should probably be appropriate for many 11 - 13 year-old children.

Conclusions

The output of these two projects measured solely by the quantity of printed material has not been great, especially when one recalls the timescale - the project was first mooted on a visit to Brussels in 1978 and the first application submitted in April, 1979 - and the comparatively large number of people whose whole-hearted commitment has been essential for even this limited achievement. It would appear as if curriculum development initiatives inevitably move at a frustratingly slow pace when attempting to tackle both context and concepts and to provide a diversity of materials whose quality will be acceptable to teachers who have not been involved in their development.

Another sobering thought occurred at the outset when no similar collection of materials that were child-centred, readily accessible and systematically selected could be found for another immigrant group to serve as a model for the Irish. Apparently most of the efforts which have been channelled into multicultural education have concentrated mainly on language prejudice and advocacy rather than on providing interested teachers with plentiful materials that are tailor-made for the classroom.

To many who are deeply committed to the study and promotion of Irish culture this project will almost certainly have raised some disturbing questions and suggested some unsatisfactory resolutions. It has tended to assume that the Irish in Britain are an ethnic minority and has played down their divisions and the plurality of Ireland's cultural traditions. It has sought to present Irish cultural studies divorced from both an Irish nationalist and an Irish language basis and merely acquaints the children of their existence. No other approach seems possible or desirable for young children in English primary schools, but for some devotees at least this form of Irish cultural studies will appear unacceptably or even unrecognisably castrated.

The project is also susceptible to criticism of a very different nature. Its approach has been almost entirely empirical and has not developed from any particular educational research. Unlike many recent initiatives in curriculum development this project has not tried to implement taxonomies of concepts and skills nor has it been concerned with the structure of knowledge. In sharp contrast it has concentrated upon the development of children's knowledge and understanding and so has regarded the selection and presentation of content as crucial. It has assumed that Irish cultural studies will never take root in British Schools without sufficient materials of such quality that commited class teachers can concentrate on their teaching and their pupils' responses rather than on adapting the materials. This appears axiomatic for the long-term success of all curriculum initiatives. Class teachers have an essential role to play in the evolving education process and for it to flourish they need support much more in the form of appropriate materials than exhortation.

REFERENCES

1 See for example: M. Craft (ed.), *Teaching in a Multicultural Society*, (Falmer Press, 1981); Robert Jeffcoate, *Positive Image, Towards a Multiracial Curriculum*, (London : Chameleon Books, 1979); A. James and R. Jeffcoate (eds.), *The School in the Multicultural Society*, (Harper and Row, 1981); Louis Cohen and Lawrence Manion, *Multicultural Classrooms, Perspectives for Teachers*, (London : Croom Helm, 1983); James Lynch, *The Multicultural Curriculum*, (London : Batsford, 1984).
Inevitably such a list is somewhat arbitrary because the literature on the development of multicultural education in Britain is quite extensive.

2 Kevin O'Connor, *The Irish in Britain*, (London : Sidgwick and Jackson, 1972), p. 173.

3 Ibid., pp. 94-5.

4 Tom Arkell, "Report to the Commission of the European Communities on the pilot project in 1981 on the development of Irish Cultural Studies for the children of Irish migrant workers in Britain", *Compass*, University of Warwick Institute of Education, vol. 3, No. 1, (Summer 1982), pp. 2-5.

UNIVERSITY OF WARWICK

IRISH CULTURAL STUDIES

Resources for teaching 9-11 year-olds

CONTENTS

A FINDING OUT ABOUT IRELAND (Unfinished)

1 Several puzzles, word searches, exercises, pictures and maps designed to encourage children to find out a wide range of information about Ireland today. They are supplemented by two booklets on Irish recipes and Aran knitting.

2 40 slides - with background information

These can be used by a group of children to plan an itinerary for a (hypothetical) visit to Ireland in the following summer and to discuss what they could (and could not) see if they took different routes. Collectively the slides convey an impression of an island that is attractive, old and modern. Individually many of the slides also illustrate other sections of this collection.

3 Ordnance Survey Map of Ireland.

To come

4 Life for pupils in Irish primary schools will be introduced by some semi-fictional letters 'written' by two or more children. These will also cover their weekend activities and their summer holidays.

5 A town trail through parts of Dublin will introduce the children to further salient differences between life in Ireland and England and to episodes from Irish history.

B THE IRISH CULTURAL HERITAGE

1 The Celts in Ireland - Booklet on History and Art

2 Early Christian Ireland - Booklet

a) Patrick - Patron Saint of Ireland
b) Life in Early Irish Monasteries
c) St. Colmcille - An Irish Missionary Monk

3 The Vikings in Ireland - Booklet

4 Irish Poems and Stories - An Introductory Anthology

a) Four short poems
b) Two Legends - The Children of Lir
The Cattle Raid of Cooley
c) Two fairy tales - The Golden Comb
The Three Gifts

5 Finn in the Kingdom of the Big Men - Story

6 Irish Music, Song and Dance

a) Five simple melodies for Recorder/Tin Whistle
b) Two songs with Piano/Guitar accompaniment
Beidh Aonach Amarach
Cead Mile Failte Romhat
c) One song arranged for school 'orchestra'
The Spinning Wheel
d) Two dances
The Siege of Ennis
The Walls of Limerick

C IRISH MIGRATION

1 Irish Migration - Information Booklet

2 The Irish in Britain - Four Life Stories

a) A Schoolboy in the 1930s
b) A Building labourer in the 1930s
c) An Advertising worker in the 1950s
d) Growing up in England in the 1940s

3 Michael Davitt in Haslingden - Booklet

4 Irish Emigration Songs

The Praties they grow Small*
My Charming Mary
Thousands are Sailing to America
The Leaving of Liverpool*
Patsy Fagan*
The Mountains of Mourne*

* with accompaniment for Piano/Guitar

5 The Great Famine (1845-50) - Pictures and Maps

6 Common Irish Surnames - Reference Booklet

7 Popular Irish Personal Names - Reference Booklet

D TEACHERS' GUIDES

1 Teaching Irish Cultural Studies

- a) Approaches
- b) Background information
- c) Some specific suggestions
- d) Further reading, records and tapes
- e) Useful addresses
- f) Acknowledgments

2 Irish Story Books for Children

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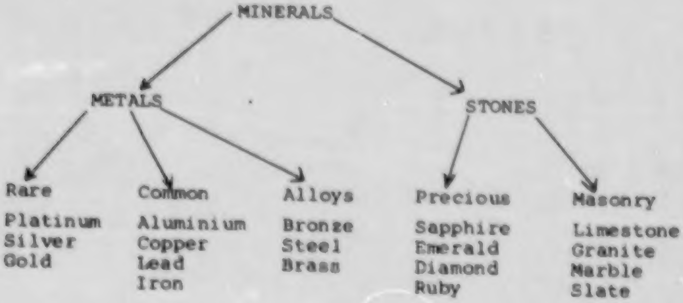
SOME ASPECTS OF THE PSYCHOLOGICAL CONCEPT OF MOTIVATION APPLIED TO THE USE OF THE BLACKBOARD IN THE CLASSROOM

Francis Douglas

There are many psychological theories of motivation which give an insight into the life of the classroom, but few which can be directly applied to the use of audio visual aids. An attempt is made in this paper to sift through some of these many theories and pinpoint those which can be applied by the teacher to the use of the blackboard, which is the most common form of visual instruction in the classroom. When a teacher uses drawings, graphs or diagrams, he or she can reduce the amount of verbal instruction and increase the variety of classroom interaction. It has been said that one diagram on the blackboard can be the equivalent of one thousand words!

The first important motivational principle concerns *clarity*. If a diagram, or the writing, on the blackboard is not clear the motivational stimulus for the observer will be reduced. In order to obtain clear drawings and diagrams the teacher has to develop and expand his/her drawing technique[1] and make use of methods of copying material such as the square-up method,[2] the projection method[3] and the pounce method.[4] Other ways of achieving clarity in blackboard presentation include the use of coloured chalks,[5] blackboard drawing devices,[6] writing with big letters and not writing too much on the board at one time.

Imposing structure on the material and its presentation can enhance motivation. There is a lot of research evidence to show that pupils learn best if the information is presented in a highly structured manner - preferably hierarchically. Note the triangle below.


MINERALS
METALS
STONES
Rare
Platinum
Silver
Gold
Common
Aluminium
Copper
Lead
Iron
Alloys
Bronze
Steel
Brass
Precious
Sapphire
Emerald
Diamond
Ruby
Masonry
Limestone
Granite
Marble
Slate

from Bower *et al.*[7]

Notice that there are not more than five levels in the hierarchy and not more than five items under any one heading, because it is felt that an adult can only take in between five and nine 'chunks' of unrelated information at a glance.[8]

Structure can also take the form of dividing the blackboard up into a number of compartments each of which is used as a separate board. One of these sections could be used for rough work, another for a deviant of the topic at hand and so forth. A further section could be used as a 'personal note pad' with odd words and pictures jotted down with no obvious *visual* structure. Associations evoked by such words, pictures and ideas can give rise to a *cognitive* structure in the mind and the material will thus be the better remembered. For the sake of clarity, and to avoid unnecessary 'distractors' the blackboard, or each of these compartments, should be completely cleared before something new is written on it.

There are three aspects of the theory of cognitive dissonance which relate to blackboard use and motivation: pupils expectations, complexity of material and personal perceptions. In his theory of cognitive dissonance Festinger[9] proposed that a discrepancy or inconsistency (dissonance) between a belief about a situation and perception of that situation acts like a drive. According to Travers,[10] Festinger's theory is concerned with four propositions:

> First the presence of dissonance is psychologically uncomfortable, and hence dissonance motivates the person to reduce it.
>
> Second the person actively avoids situations likely to increase any dissonance already present.
>
> Third an inconsistent environment tends to continuously produce diddonance within the individual.
>
> Fourth, individuals differ in the extent to which they will tolerate dissonance within themselves.

Expectations

While watching the teaching using the blackboard, pupils expect that he will make use of it in a certain way. These expectations are based on past experience, i.e. what they heard from parents, friends and other teachers about blackboard utilisation. If the pupils perceived expectations are not fulfilled (for example by the teacher covering the blackboard with brown paper[11] or writing a poem in Greek) dissonance is created within them. The satisfaction of this dissonance (which is what causes them to be motivated) can only be brought about by exactly matching their perceived expectations with their perceived experience, i.e. by giving them exactly what they expect. If a teacher's blackboard work is entirely predictable the pupils' motivation from this source (according to this theory) will fall to zero!

The teacher's task is to create dissonance within his pupils by presenting them with the unexpected, the slightly unexpected or the interesting, for instance projecting a diagram onto the blackboard with the overhead projector and drawing round the outline. The dissonance is psychologically uncomfortable for the pupils and spurs them to activity in order to reduce it. The pupils will only get rid of this dissonance when their expectations of what the teacher will do with the blackboard exactly matches their perceptions of what is actually happening. In other words, the teacher has to be continually using the blackboard in a slightly novel or unfamiliar way.

The next thing which a teacher must grasp is that a person has a certain capacity for dissonance. When that capacity is reached the person can take no more and switches off - he avoids situations where it is likely to be increased until it becomes too much for him. Such pupils opt out of a lesson and refuse to effectively learn any more. Capacity for dissonance differs from person to person. It may well be that for children brought up in a traditional classroom, being asked to come up and write on the blackboard (with all the disturbances of classroom routine which that entails) will cause too much dissonance within them (too big a gap between perceived expectations of the lesson and their perception of what actually happens). With other children of the same age in another school such an activity may provide too little dissonance within them (too little gap between perceived expectations of the lesson and their perception of what actually happens) - perhaps the teacher has been using this technique too often. In conclusion, the teacher partly through his use of the blackboard, controls the level of dissonance in the classroom. He is constantly increasing or decreasing this level in order to fin the optimum for his particular pupils.

Complexity

The complexity of material presented should match the increasing complexity of the pupils' developing intellectual skills and abilities. BUT, this is not always easy to accomplish. Sometimes subtle judgements are required. Hunt [12] calls this 'the problem of the match'. Teacher perceptions are not necessarily pupils' perceptions. What is clear and uncomplicated to the teacher is not necessarily clear and uncomplicated to the pupil. In answer to the question, 'How can a teacher tell what is the right increase in the level of complexity of a task?' we can say briefly that it is only by observing if the child remains interested and continues trying. When the increase is too great, the child's increased interest becomes a basis for frustration. When the increase is too small the child is bored. It is highly important that a child should be free to take or leave a given level of complexity on the blackboard according to his own inclinations. For example, a child should not be _forced_ to come up to the blackboard to attempt a problem which he does not feel he can do. It is only when children face disapproval or the loss of of love for failing to accept models which are beyond them that difficulty results.

Perceptions

Another facet of blackboard work which creates dissonance within the individual, and hence a motivating drive, is where use is made of such 'laws' of perception as 'Incomplete Closure' and 'Good Continuation'.[13] (These 'laws' and others were developed by the Gestalt psychologists Kohler, Koffka, Wertheimer, etc.) An example of the former would be where an incomplete circle is drawn round an item on the blackboard. The individual will be motivated to remember the item within this circle because the break in it creates tension, a sense of incompleteness or dissonance within him. An example of 'Good Continuation' would be where an incomplete sentence was written on the board and the pupils were asked to copy it down and fill in the missing words. Such an activity will again be motivating if its level of complexity is not too high or too low (i.e. their previous learning and experience will just allow them to do it).

In contrast to the motivational theory of cognitive dissonance, Behavioural Psychologists tend to argue that the following three factors are important in motivation:

a) giving pupils immediate knowledge of results concerning the task they have just completed;
b) the teacher providing rewards and punishments. (Skinner believes that both positive and negative reinforcers can be viewed as incentives);[14]
c) the teacher promoting co-operation and competition in class.

The blackboard can be used as an aid in promoting all three. Firstly, immediate knowledge of results can be given to questions written on the blackboard and attempted by the pupils. Alternatively questions can be asked verbally and answers given on the blackboard and so on. Secondly, the teacher can use the blackboard as part of a strategy to give rewards. For example, pupils can be asked to write on it, and pupils' names can be listed on it who have done well. Finally, co-operation and competition within the class can be promoted by keeping the scores for a classroom quiz, or naming those who are in a team.

In conclusion, the examination of the concept 'motivation has yielded five implications with regard to blackboard work, namely the importance of:

1 clarity of presentation
2 structure in presentation
3 pupil expectations
4 pupil perceptions
5 the level of the complexity of presentation.

REFERENCES

1 **Drawing Technique** The following is usually recommended as the basis of good drawing techniques on the chalkboard:

A Sketch in the outline by using light, overlapping strokes to give the desired preportion and shape. This provides a guide or framework for detail and the final solid line of the drawing;

B erase all the unnecessary lines and retain only a very faint trace of the desired outline;

C retrace the outline with a good, strong, solid line and add any detail required to complete the drawing.

Remember that sketching may be facilitated particularly for large drawings by placing at the corners of key points.

2 **Transfer of Drawings to the Chalkboard - Square-up method**. Firstly cover the drawing with squares (say 5 cm squares). Then, having decided how many times larger you require the picture on the board, draw larger squares on the chalkboard (say 20 cm squares, i.e. picture on the chalkboard four times the size of the original). Then copy into each of the larger squares on the chalkboard what is in each of the squares on the original picture.

3 **Transfer of Drawings to the Chalkboard - Projection method** Place the transparency of the picture which you wish to transfer to the chalkboard on the overhead projector. Adjust the projector until the image is the right size and in the right place on the chalkboard. Draw round the outline with chalk. Switch off the projector.

4 **Transfer of Drawings to the Chalkboard - Pounce method**. Draw the diagram or picture onto a sheet of paper. Punch holes at frequent intervals along the lines of the drawing (the point of a children's compass or dividers is very useful for this). Hold the paper against the chalkboard and hit it with the chalkboard duster so that the chalk goes through the holes in the paper and makes a mark on the board underneath. Remove the paper and draw round the outline with chalk. (Alternatively a 'pounce bag' can be used instead of the chalkboard duster. This is a small coarse-weave cloth bag full of talcum powder.)

5 The use of coloured chalks The use of five different coloured chalks in combination has been found to be most effective. White, Red, Blue, Yellow and Green have been shown to be the psychologically most 'meaningful' colours.

6 Blackboard Drawing Device Usually consists of compass, straight-edge 'T' square and protractor. Also various triangles irregular curves and a multiple-chalk holder can be used.

7 Bower, G. H., Clark, M. C., Lesgold, A. M. and Winzenz, D. 'Hierarchical Retrieval Schemes in Recall of Categorised Word Lists', Journal of Verbal Learning and Verbal Behaviour, 8, pp. 323-343, 1969.

8 Miller, G. A. 'The Magical Number Seven, plus or minus Two: some limits of our capacity for processing information', Psychological Review, 63, pp. 81-97, 1956.

9 Festinger, L. A theory of Cognitive Dissonance, Row Peterson, Evanston, Illinois, 1957.

10 Travers, J. F. Educational Psychology,New York : Harper and Row, 1979.

11 Covered Chalkboard Here items are written on the chalkboard before the start of the lesson and covered with paper. During the course of the lesson the sheets of paper are taken down exposing what is underneath to the pupils.

12 Hunt, J. McVicker, Intelligence and Experience, Ronald Press, pp. 267-272, 1961.

13 See Child, D. Psychology and the Teacher, (3rd ed.) New York : Holt, Rinehart and Winston, 1981.

14 Skinner, B. F., Science and Human Behaviour New York : MacMillan, 1953.

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AN EXAMINATION OF SELECTED DIMENSIONS OF NATIONAL SCHOOL PRINCIPALS' CONCERNS FOR SCHOOL ADMINISTRATIVE ISSUES

Donald Herron

SUMMARY

Determining the purposes and intentions of administrative behaviour has remained problematic despite intensive research on the work behaviour of administrators. The various research methods do however provide a wealth of data on activities, locations and with whom administrators interact. This data provides a means to determine the administrative attention to different issues. Research on National School principals' work behaviour shows that principals devote over one-third of their activities to administrative issues, another third to pupil-related issues and under one-fifth to curricular and instructional issues. Fewer than one-in-five of the latter were with teachers. Meetings were the common means for attending to each of the three main issue areas. A major proportion of the remaining attention to pupil-related issues was through supervision and to curricular and instructional issues through teaching. While the majority of principals' attention was self-initiated, a significant proportion was scheduled especially for supervision and teaching. Principals need to examine their patterns of administrative attention to see if it accords with their stated goals and values. The need for the provision of certain administrative skills would seem necessary if the patterns emerging from this research are not what principals' perceive as their pattern of attention.

INTRODUCTION

In the past thirty years a wide variety of approaches to recording and analysing administrative behaviour have been developed. They have ranged from the diary approach[1] to the ethnographic[2] and more recently observational studies, some of which have been structured.[3] Webb and Lyons[4] succinctly summarises the results of these researches:

> The results of most of these investigations tend to contradict the notion of managerial activity as a systematic ordering of activities and programmes based on a constructed strategy of corporate development. Instead, the manager presents himself in his activities as an individual working at a high intensity of tasks rapidly dealt with on a personal basis, subject to a stream of short-term interruptions presented as problems to be resolved. He collects and uses large quantities of detailed, but unsorted information . . . and the greater part of his time is used to keep the organisation working effectively in the very short-term; all this gives him only limited time or opportunity to consider longer term matters. (pp. 86-87.

These approaches to administrator behaviour have in turn been focussed on school principals.[5] The findings in this research confirm principals' managerial behaviour as similar to managerial behaviour in general.[6] The principal is more isolated from outside influences than other administrators[7] and tends to have the bulk of his contacts with persons inside the organisation. Pererson's[8] findings on the working day of the elementary school principal is representative of the researches reported to date:

> We have found that the time use of the principals we studies is characterised by activities of short duration which are highly varied in function and which change with great frequency throughout the day. Principals must constantly "change gears"

> during the day in part because so many of their activities are initiated by others and because their tasks are highly varied in difficulty and type. (p. 4)

These patterns of behaviour are those of principals without teaching responsibilities.

In one area of investigation there has been less than unanimous agreement. This concerns the administrators' purposes or intentions in any episode or event. The diary approach generally has each administrator record the details of his own activities using pre-selected categories. Stewart[9] expressed dissatisfaction with this aspect of her research instrument. Questions dealing with the purpose of administrator behaviour were dropped in her final diary pads because of ambiguity and lack of commonly held interpretations as to the meaning of the terms that she had selected. The observational researchers on administrative behaviour categorised the purposes of the activities during and after observation.[10] The apparent advantage of on-the-spot observation did not eliminate the difficulty of ascribing purposes to administrators' behaviour. An element of interpretation was present and was acknowledged by Mintzberg[11] when he wrote:

> I did all I could to find the most logical classification for the purpose of each meeting without trying to close my eyes to important data and thereby paying a high price for categorising and without trying to search for trivial subtleties. (p. 103)

Subsequent researchers in school administration have acknowledged this difficulty.[12]

Webb and Lyons[13] re-analysed data from an earlier diary research project.[14] Their conclusion was that what school administrators (both headmasters and senior staff) recorded in their diaries were those features of the day's administrative chores that were most amenable to recording. (p. 96) They suggested

> that the apparently simple or elementary skills recorded tend to conceal deeper and more fundamental processes, or roles being played out. The entries appear to record single discrete activities but the analysts . . . recognise them as more complex or multi-faceted. (pp. 88-89)

It is possible, then, in any activity for several roles to be played at the same time and for a combination of skills to be employed in any given situation. This very complexity makes it difficult to quantify purpose or intention in the approaches used to date. What may be quantified are the behavioural dimensions of principals' concern for the various issues in the administration of the school. The amount of time devoted to various issues indicates in a suggestive way a principal's priorities. Sergiovanni[15] has called this 'administrative attention'. He noted that

> Symbolically, how an administrator uses time is a form of administrative attention which communicates meaning to others in the school. It is assumed that an administrator gives attention to the events and activities he or she values. (p. 3)

This attention may be at variance with the principal's stated values and concerns. A deep commitment to pupils' academic and social progress sensitive to individual needs may be a stated priority of a principal. But this policy is likely to be ignored in favour of one which pupils, teachers and parents infer on the basis of administrative attention. In spite of the principal's protestations to the contrary, if most of his time is spent on routine office activities or ensuring pupils' conformity to school rules, the observers will learn that order, "running a tight ship" is the main concern of the principal.[16]

By looking at the behavioural dimensions of principals' attention to various issues we can see in a quantitive way the directions of their attention. This data will be indicative and suggestive of their purposes and intentions. A diary study may provide these features as was shown in the article by Webb and Lyons.[17] In a recent diary study in this country, the work behaviour of National School principals was examined.[18] In the remainder of this paper the issues of concern to the principals are examined to highlight their administrative attention. The activities in which they engaged and the persons with whom they interacted in the pursuit of these issues is also examined.

RESEARCH METHODOLOGY

Thirty-nine National School principals in the Dublin city and county area were systematically chosen to participate in a study that examined the work behaviour of principals. They were statified for sex. The research instrument was through the use of diaries. The principals provided detailed information on their activities for each half-hour for each of five days. The main study was conducted in late March 1983. The longest activity in each half-hour was chosen as the basis of analysis. Along with details of the activity that the principals engaged in they indicated the issue that concerned them whilse so engaged, with whom it took place and who had initiated it. This they recorded by means of check-off in the diary booklets into categories that were developed from the literature and from a pilot study conducted earlier in the school year.

By the focus on the attention paid to issues and by an examination of the features of th is attention - what they were doing, with whom and who had initiated it - we may gain some insights into principals' concerns and purposes and the direction of their attention. However, as the research was conducted during one week of the school year and because of the limitations of pre-categorised data collection the results must be treated with caution. Moreover, principals, in recording the issue that concerned them could choose but one issue thus denying insight into the very multi-faceted nature of some activities.

RESULTS

In TABLE 1 is presented the attention of principals to the various issues over the course of the five days. The highest attention was paid to clerical-administrative issues. Some of the activities were routine, even tricial - enrolling pupils, daily registers or selling school requisites. Lower but similar levels of attention were paid to pupil discipline, pupil issues (except discipline) and instructional issues respectively. Lower levels of attention were devoted to the remaining issues. Relatively more attention was given to maintenance and finance than to curriculum issues. The level of attention devoted to pupils' religious practice and formation may have been influenced by the proximity of the survey week to Easter and the children's reception of the Sacraments. The least attention was reported as being paid to Staff relations. It is worth noting that in the pilot study a similar pattern of attention to issues emerged.[19]

These issues may be classified under three main headings for further analysis:

TABLE 1 The Issues to which Principals attended, in rank order

Issue	No. of activities	%
Clerical-administrative	446	18.3
Pupil discipline	377	15.5
Pupil non-disciplinary	345	14.2
Instruction	339	13.9
Personal (incl. lunch breaks)	150	6.2
Public relations	142	5.8
Maintenance (incl. cleaning)	132	5.4
Religious practice and formation of pupils	124	5.1
Finance	114	4.7
Curriculum	101	4.2
Staff relations	56	2.3
Other	105	4.4
Totals	2431	100.0

1 Administrative issues[20]

2 Pupil-related issues

3 Curriculum and instructional issues

Just over one-third of the principals' attention was given over to administrative issues (i.e. 36.7%) while another third (33.2%) was devoted to pupil-related issues. The percentage of attention given to curricular and instructional issues was 18.1%. How were these issues areas expressed behaviourally? What where the principals doing in giving attention to each of these main areas of concern? TABLE 2 compares the percentage of each area as expressed in various form of activity.

TABLE 2 Principals Activity Pattern for each area of issue

	Issue		
	Administrative	Pupil-related	Curriculum Instruction
Number	890	846	440
Percentage of total	36.7	33.2	18.1
Activity engaged in	%	%	%
Unscheduled Meeting	24.6	31.8	19.2
Scheduled Meeting	8.9	13.0	8.4
Deskwork	30.6	4.0	8.0
Teaching	0.4	2.0	35.9
Supervising	2.5	33.2	10.0
Announcing	1.9	2.8	10.0
Routine activities*	15.7	0.2	1.5
Tour premises	5.4	7.0	4.8
Phoning	3.3	2.3	0.7
Maintenance work	6.0	0.2	0.0
Other	2.7	3.5	1.7
Totals	100.0	100.0	100.0

* Routine activities includes: selling requisites, counting and banking money, duplicating, opening and locking the premises.

Meetings, the majority of them unscheduled, were the common major activity as principals attended to each of the main areas of issue. Much of the principals' work, whatever the concern, is effected through face-to-face meetings with the people concerned - teachers, pupils and to a lesser extent parents. However, for each issue, there was another dominant activity - different for each issue. A major proportion of the principals' attention to curricular and instructional issues is is through teaching. Smaller amounts of activities are given over to supervision and announcements. The supervisory activities were in nearly all cases the supervision of the children while at work on a set task in their classrooms or while accompanying the teacher and pupils on an educational tour. What was significant about the announcements that had an instructional concern was that in many cases they were of a hortatory nature. The announcement followed some incident - an accident in the playground or on the road - which the principal used as the starting point for some instruction.

Turning to the pupil-related issue we see, that along with meetings, this issue is also dealt with through supervising and to a lesser extent touring the premises. When we turn to administrative issues, we see that along with meetings, the principals usually dealt with this issue through paperwork at their desks. Nearly one-in-six of the activities concerned with this issue was in the performance of routine tasks - selling requisites, counting and banking money, duplicating and opening and locking the premises. There was no significant difference in this activity for principals with or without clerk-typists or caretakers. Deskwork appeared to be that activity that was postponed to later in the school day, and for three-quarters of the principals to later in the evening.[21] While there were differences between individual principals no cldar discriminant factor (age, sex, lay or religious status, size or type of school or the number of years experience as principal) emerged from a discriminant analysis to explain the differences. Other factors may have been at work.

A second perspective on the concern of principals for various issues is to look at the persons that the principals were with at that time. Though no judgement may be made as to the effectiveness of a principals' time with any one group of persons the principals' patterns of association for each of the main issue areas are indeed of interest. In TABLE 3 the percentage of the principals' contacts with different people are outlined under the three main issue areas.

TABLE 3 Principals' cpntact patterns when dealing with the main issues

	Issue		
	Adminis-trative	Pupil-related	Curriculum instruction
Number	890	846	440
Percentage of total	36.7	33.2	18.1
Person(s)	%	%	%
Alone	36.2	13.8	8.4
Teacher(s)	15.5	19.6	17.0
Pupil(s)	8.9	25.8	46.8
Parent	4.5	13.5	0.7
Teacher and pupils	2.8	14.9	10.7
Board of Management Member	4.4	2.7	0.7
Inspector	0.7	0.7	2.3
Ancillary staff	14.8	0.6	0.7
Staff of another School	3.6	2.5	1.8
Student teachers*	0.0	1.1	5.2
College of Education Staff*	0.0	0.6	3.9
Medical, Social or Psychological personnel	0.0	2.5	0.0
Others	8.6	1.7	1.8
Totals	100.0	100.0	100.0

* Student teachers from the Colleges of Education were on teaching practice in the schools during this week

Looking at the administrative issue first we note that over one-third of these are dealt with alone. The principals also have significant contact with ancillary staff - clerk-typists, caretakers and cleaners. There is a higher percentage of contact with Board of Management members under this issue than in the other two issues. The opposite holds for contacts with the departmental inspectorate. The principal is in contact with teachers to a similar degree for each of the issue areas.

The contact pattern while dealing with pupil-related issues is a little more evenly spread over pupils, teachers and parents. It is important here to recall the activity pattern for this issue with its emphasis on supervising and meetings (Table 2). This is the only issue heading where parents are significantly in contact with the principals. Also, almost two-thirds of the principals' contacts with pupils were disciplinary/supervisory in nature. In total, the percentage of attention to pupils under this issue heading whether with or without their teachers was just over 40%. This contact level amounted to 3.1% of all the recorded activities during the week of the survey.

The principals' contacts with teachers on curriculum and instructional issues were further examined to see what activity patterns emerged. The results of this examination are presented in TABLE 4.

The majority of teacher contacts were meetings, mostly unscheduled. The teacher was as likely to initiate these as was the principal. What also emerges is that in principal-teacher contacts on instructional issues

TABLE 4 The Activity of Principals when on contact with teachers on curricular or instructional issues

	Curricular issue		Instructional issue		Total	
	No.	%	No.	%	No.	%
Unscheduled meetings	24	51.1	9	32.1	32	43.8
Scheduled meetings	14	31.1	3	10.7	17	23.4
Deskwork	2	4.4	0	0.0	2	2.7
Tour premises	4	8.8	3	10.7	7	9.6
Teaching	0	0.0	6	21.4	6	8.2
Announcing	1	2.3	2	7.2	3	4.1
Supervising	1	2.3	5	17.9	6	8.2
Totals	45	100.0	28	100.0	73	100.0

less than half were classified as meetings. The principals, then, indicate very little attention to the core activity of the school - instruction - as evidenced by the levels of contact with teachers in this area.

A final perspective with which to look at principals' concern for the various issues is to look at who had initiated the various activities. Principals had been asked to identify initiation as self-initiated, other-initiated or scheduled. The latter category was included in the research instrument after the pilot study and as a result of follow-up interviews. TABLE 5 indicates the levels of attention to each issue that was self, or other-initiated or scheduled for or by the principals.

TABLE 5 The Initiator of the Principals' Activities for each of the main issues

	Issue			
Initiator	Adminis-trative	Pupil-related	Curricular instruct-ional	Total
Self	66.1%	45.7%	57.1%	56.4%
Other	23.5%	29.5%	17.1%	24.5%
Scheduled	10.4%	24.8%	25.8%	19.1%
Totals	100.0%	100.0%	100.0%	100.0%

Less than half of the principals' attention to pupil-related issues had been self-initiated. This issue was that the highest level of other-initiation. However, it is also an issue toward which the principals indicated a significant level of prior commitment as shown by the percentage of activities that had been scheduled. This was particularly so for supervising. It portrays a principal bound by his (timetabled) commitment to supervision or responding to the requests of others in a majority of cases. The balance is redressed in their attention to administrative issues where just two-thirds of activities are self-initiated. While over half of the principals' attention to curricular and instructional issues is self-initiated, this freedom is used to be involved with pupils rather than teachers, to teach rather than to meet. The phenomenon of a relatively high level of scheduled commitment is evident for this issue also. Overall, just over half of the principals' activities for all issues are self-initiated. For the remainder of the time their attention is either in response to the requests of others or to a lesser extent scheduled.

SUMMARY AND CONCLUSIONS

The reporting on administrators' and principals' intentions and purposes in their work behaviour has been seen as problematic by many researchers. Analysists, including those observational researchers, have been aware of this limitation. The research reported in this paper has not been able to clarify these issues either. However, in its focus on the behavioural, interactional and initiation features of principals' attention to the main issues - administrative, pupil-related and curricular and instructional issues - this paper has indicated some of the aspects of principals' attention to the issues. Curricular and instructional issues feature in less than one-fifty of the principals' activities. Greater attention is paid to administrative and to pupil-related issues. Meetings were one of the important ways of dealing with each of the issues. The majority of these meetings were unscheduled. Along with meetings pupil-related issues were also dealt with through supervision and curricular instructional issues through teaching. This level of attention to curriculum and instruction may not measure up to educationalists' or even principals' own expectations.[22] Attention to this issue included a significant amount of teaching. Principals are reported[23] as seeing themselves taken from their real task - instructional leaders - and forced to attend to other more immediate tasks - pupil behaviour, unscheduled meetings and administrative demands. It would appear that to avoid excessive attention to the non-instructional issues a number of things are demanded. The skill of time-management needs to be developed and practiced so that the principal can free more time from the often trivial administrativa to the other issues which he values. Many of these tasks could be effectively delegated. Given a low level of contact with teachers on curricular and instructional issues it would seem important to develop the skills and structures to facilitate the principals' involvement with teachers. On the present evidence additional available time might well be devoted to increased teaching. While this is not incorrect in itself, it does ask us to consider how principals in this study perceived their roles in relation to curricular and instructional issues. Yes, they are active in this area but is their concern one of a school administrator? There is strong evidence of close participation in the activities of the school. Is this participation at the expense of a concern for what are the stated goals of the school? It could be argued that a greater specificity in the stating of the goals for the principal and the staff might give clearer indications to the principal where his attention might be directed.

The data on the locus of initiation for the various issues reveals that principals do enjoy some discretion in their attention to administrative issues. Two-thirds were reported as being self-initiated. In contrast, less than half of the activities devoted to pupil-related issues had been self-initiated. It is in this area that principals appear beleaguered: they are supervising or conferring with teachers and parents on pupils' progress, welfare or behaviour. Almost all the parent contacts had been unanticipated. A quarter of the principals' attention to pupil-related issues and to curricular instructional issues was scheduled. It could be tentatively concluded from this that because of the value placed by principals on the related activities - supervising and teaching - they timetables themselves for these activities. An alternate explanation could be that they see themselves as teachers having a duty to participate in these activities. In this connection it is interesting to note that the Department of Education Circular 16/73[24] sees these as integral to the job-description of the principal.

Whether the patterns of administrative attention outlined here are parallel with principals' stated intentions or their perceived attention is a subject for further investigation. Any changes envisaged by principals as a result of such an examination of their administrative attention patterns will demand that they critically examine their levels of scheduled activities and consequently their methods of direct involvement with pupils. Also called for is an examination of the goals they have set for themselves. The proportion of the levels of attention to issues is to an extent influenced by the aims one has. Shifts in attention to the position of their valued priorities and goals (if they are in contrast to those emerging here) will have to be accompanied by professional development and inservice courses that focus on effective time-management, the skills for involvement in curriculum and staff development and the strategies for effective delegation.

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REFERENCES

1 Sune Carlson, Executive Behaviour, Stockholm : Strombergs, 1951. J. H. Horne and T. Lupton, "The Work activities of Middle-managers - an exploratory study", The Journal of Management Studies, Vol. 2, 1965, pp. 14-33, and Rosemary Stewart, Managers and their Jobs, (London : Macmillan, 1967).

2 Leonard Sayles, Managerial Behaviour, (New York : McGraw-Hill, 1964).

3 Henry Mintzberg, The Nature of Managerial Work, (New York : Harper and Row, 1973).

4 Peter C. Webb and Geoffrey Lyons, "The Nature of Managerial Activities in Education", in H. L. Gray (ed) The Management of Educational Institutions, (Lewes : The Falmer Press, 1983) pp. 85-108.

5 Nathan Stoller and William H. Graves, "Principals study their Jobs", The National Elementary Principal, Vol. 33, No. 2, 1953, pp. 10-14, 22.
Harry Wolcott, The Man in the Principal's Office, (New York : Holt, Rinehart and Winston, 1973).
John T. Kmetz and Donald J. Willower, "Elementary School Principals' Work Behaviour", Educational Administration Quarterly, Vol. 18, No. 4, 1982, pp. 62-78.

6 Meredydd Hughes, "The Role and Tasks of Heads of Schools in England and Wales", in Seamus Hegarty (ed.), Training for Management in Schools, (Windsor : N.F.E.R. and Nelson, 1983) pp. 24-48, p. 35.

7 James March, "American Public School Administration : a Short Analysis", School Review, Vol. 86, 1978, pp. 217-250.

8 Kent D. Peterson, "The Principal's Tasks", Administrator's Notebook, vol. XXVI, no. 8, 1977-78, pp. 1-4.

9 Rosemary Stewart, "The Use of Diaries to Study Managers' Jobs", The Journal of Management Studies, vol. 4, 1967, pp. 228-235.

10 Henry Mintzberg, "Structured Observation as a Method to Study Managerial Work", The Journal of Management Studies, vol. 7, 1970, pp. 87-104.

11 Ibid.

12 Quentin Willis, "The Work Activity of School Principals : an Observational Study", The Journal of Educational Administration, Vol. 18, No. 1, 1980, pp. 27-54, p. 35.

13 Webb and Lyons, "Managerial Activities in Education", op. cit.

14 Geofrrey Lyons, The Administrative Tasks of Heads and Senior Teachers in Large Secondary Schools, (Bristol : University of Bristol, 1974).

15 Thomas J. Sergiovanni, 'Planning and Time Management : Keys to Effective Educational Leadership', The Australian Administrator, Vol. 1, No. 5, 1980, pp. 1-4.

16 Ibid.

17 Webb and Lyons, 'Managerial Activities in Education', op. cit.

18 Donald Herron, The Work of the National School Principal : a Diary Method Study of Dublin Principals, Educ. Dept., University College Dublin, unpublished M.Ed. Thesis, 1983.

19 Ibid., p. 195.

20 Administrative issues was taken to include : clerical-administrative, public relations, staff relations, maintenance and finance issues; Pupil-related issues included: pupil discipline, pupil non-disciplinary issues and pupils' religious practice and formation; Curriculum and instruction included these two issues.

21 Herron, The Work of the National School Principal, pp. 119-120.

22 Larry W. Hughes and Gerard C. Ubben, The Elementary School Principal's Handbook : A Guide to Effective Action, (Boston : Allyn and Bacon, 1978) pp. 344-349.

23 Ann Cook and Herb Mack, The Head-Teacher's Role (London : Macmillan Educational, 1971) pp. 54-56.

24 Department of Education, Circular 16/73, 'Responsabilities and Duties of National Schools', paragraphs 4 and 14 of Section B.

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PROBLEMS IN THE FINANCING OF HIGHER EDUCATION

A. C. Barlow

Higher education is a large and growing industry. Over the next twenty years it is possible that the expenditure on higher education could match all government revenues generated by the current oil find. Thus the financing of such expenditures is of material concern to all of us as taxpayers and is of even more serious concern to those of us who are administrators, staff and parents or potential parents of future students.

These are problems that will grow in magnitude. The expansion of the population in the 15-24 age group, the rising proportion of that catchment group who are likely to enrol and the increasing unit costs of higher education will all increase the resources required.

Already the costs of higher education are substantial. Figures from a 'highly confidential report to the Higher Education Authority' (Irish Independent, Oct. 5 1983) revealed that the total costs per student at UCD were as shown in Table 1 in 1981/82. Comparable figures for second and first level are of the order of £400 for first level and £800 for second level. Such costs provide substantial financing problems.

Before examining the various options there are some basic considerations to bear in mind. The first is that when one examines age-income profiles it is clear that those with more education earn higher incomes than those with less (although the reduced real value of income tax bands have reduced this significantly for after tax

TABLE 1

Faculty	Cost	Fees as % of cost
Veterinary	£11,600	5.3
Agriculture	£7,000	8.0
Engineering and Agriculture	£4,400	12.7
Science	£4,200	13.3
Medicine (and hospital charges which were considered impossible to quantify)	£3,700+	16.7+
Arts	£1,800	23.3
Commerce	£1,200	35.0
Law	£800	52.6

incomes). This has given rise to the view that education may be considered an investment, creating human capital and giving a rate of return.

The second consideration is that those who receive higher education are generally amongst the better off groups of our society. Around 80% of university students are from families in the higher socio-economic groups and the proportion who continue to jobs in these socio-economic groups is even higher. Thus, in general subsidies to higher education assist both the existing and future better off groups.

Perhaps for this reason there have been calls for restraint on higher education spending. This combined with the so called inequity of the fact that it costs of the order of six (three) times as much per year to educate a third-level student as against a first (second) level pupil.

This argument has deficiencies on both efficiency and equity grounds. On efficiency grounds if cut backs are to be made they should be made where the marginal pound has least effect. It is not clear where this is. At lower levels of education the major effect of cut backs is to reduce staff-student ratios. At the prevailing levels the effect on student attainment is relatively small (see Barlow 1981b). The effect of reduced expenditure at higher levels is more in terms of the up-to-dateness of skills and ideas and familiarity with modern equipment. For the first and second level the costs are more social in terms of the lack of individual attention to school pupils and the strain on teachers. Both costs are serious but it is not clear which is more so.

On distribution grounds, the level of spending is only relevant if one assumes the distribution of financing is constant. Thus, on such grounds, cuts may not be desirable if the distribution of financing can be changed. This is the approach followed below.

In this discussion I would like to focus on the financing of higher education from three perspectives. Firstly, from a social perspective, where I will outline some of the findings of my ESRI paper with subsequent considerations. Secondly, I will discuss some of the problems involved in introducing loan schemes. Thirdly, I will focus on the financing of the institutions.

1 The Social Perspective

In my ESRI paper (December 1981), I examined and assessed six major means of financing higher education. These alternatives were assessed according to six criteria derived from the stated objectives of interested parties.

These were equality of opportunity; social mobility, economic equality, efficiency, economic independence and practicality.

The results of the analysis were that three options were preferable:

1) A general grant scheme where all 15 year olds received a credit from public funds which could be used for approved investment purposes: for training in a skill, for higher education, for buying a house or for setting up in business. Although this scheme was perhaps the most attractive on most criteria, its expense was well above the other schemes, to such an extent, that at the time, it seemed reasonable to conclude that such a scheme was not feasible. However, it is worth noting that the value of our current housing subsidies to those in local authority tenure and the tax relief on interest payments for mortgage holders are of the same order of magnitude. Since a general grant scheme would provide funds for housing, it might be a substitute. It would avoid the present situation where some of our best-off persons receive high levels of subsidy, for higher education and on borrowing for housing. It would also ensure subsidy for those who at present receive no such subsidy - those who do not undertake higher education and live in private rented accommodation. This group contains some of the least well-off people. However, the political difficulties of changing to such an approach might be unsurmountable.

2) A means-tested subsidy scheme without institutional subsidies

This scheme involves development of the existing scheme whereby students from less well off backgrounds receive grants towards their fees and maintenance.

Under the present scheme the size of the awards depends upon the income of the (father) in the previous tax year.

The major drawbacks of the present scheme are firstly that the institutional subsidies are inegalitarian. Secondly, they do not seem to have increased the proportion of students from less well-off homes. Thirdly, those who are fortunate enough to have fathers with high earnings are unfortunate in having to be totally dependent upon their parents even though they may be aged 24 or 25 when they complete their course. What is more, if perchance their father becomes unemployed during the student year the grant is now renewed and parental willingness or ability to help may be strained or not exist.

The inegalitarian nature of the present scheme could be mitigated by increasing fees, and to some very small extent this has happened over the last four years - fees have risen by 50% in real terms over the last 4 years. However, as mentioned earlier if this were to be carried out in its fullness it would present serious difficulties for some students particularly those who are just outside the grant eligibility limits. In addition many more might be discouraged by the high costs. Thus, such developments would probably only be feasible if accompanied by the third alternative:

3) Income Contingent loans schemes (ICLS)

These are loans whose repayment is dependent on the future income of the students. A fairly reasonable example for 1983/84 would be a student on a four year course who might require around £5,000 for maintenance and £15,000 for tuition (with full cost-fees). If the average graduate income was £12,000 and he repaid 5%

5% of his income the loan could be repaid over 33 years. In the event of joblessness, illness or deaths and consequently no income, the repayments percentage remains the same and 5% of nothing should not be hard to repay. The actual method of operation could be by giving graduates an appropriate negative tax allowance. Alternatively graduated repayments loans could be offered where repayments are low in the early years and rise over the lifetime.

Since I wrote the report containing these conclusions the Programme for Action and Education (1984) has been published. This states that "the Government is considering the feasibility of a loan scheme to be operated in tandem with the existing higher education grants scheme".

II Loan Schemes

A number of issues are involved in such a development. Will it have income contingency aspects? Who should administer the scheme? Will it be subsidised? How will defaults be treated? I will address each question in turn.

1) Will it have income contingency aspects?

There are good arguments for this. It can resolve the problem of the negative dowry, the low income student and the student who becomes ill or unemployed. However, it makes the scheme less profitable. It might also make the scheme expensive to administer. In addition it would effectively increase the marginal tax rate.

The administration problem could be relatively easily resolved if the collection was by means of a percentage reduction in the personal tax allowance for a given number of years. The sizes of the reduction in tax allowance would depend upon the extent of borrowing. This proposal has the important virtue that it would be effectively index linked, so that as personal allowances rise so does repayment. Even without such a proposal an ordinary loan scheme would be much more acceptable if it made allowance for the contingencies of illness and unemployment.

2) Who should administer the scheme?

There would seem to be three main alternatives: the banks; the colleges or a government agency. The banks have expertise in collecting repayments but little knowledge of how to apply educational criteria, conversely with the colleges. The government agencies may have expertise in both or neither. The colleges and banks may require financial incentives to participate, the government agency may simply lose money.

3) Should the scheme be subsidised?

Student loan schemes in other countries have generally been subsidised, usually by interest rates being set lower than the market level. This can involve considerable subsidies and costs to the exchequer.

If repayments are set as a fraction of earnings (or equivalent) then this automatically takes accounts of those interest rate changes which are due to inflation. This is because inflation generally feeds through into higher earnings increases and higher interest rates.

4) Loan Default

Income contingency provisions on the loans, as in Sweden, result in much lower default rates. In that country there is automatic provision of postponement for those who cannot pay their debts as a result of low or zero earnings. In the U.S. and Canada there are no such contingency provisions and the result is higher default rates. Nevertheless, the high default rates in these two countries include those who miss or postpone payments. The full default rate is very considerably lower.

6 Further Considerations

Whatever the decisions on issues 1 - 4, repayment will be burdensome. Long summer holidays provide one opportunity for students to make such repayments. Another possible opportunity is the use of students as college employees (a practice which has a precedent in medieval times).

III Funding the Institutions

At present, institutions are financed by fees and government funds. Over the last three decades, there have been considerable variations in the share of funds provided from these sources. In the early 1960s the share of fees was around 35 per cent in the universities but this had dropped 12 per cent by 1979. Since then fees have increased substantially such that the share is now around 17 per cent. The situation in the teaching training colleges was similar but the other institutions had much lower contributions from fees though fees were also raised substantially in these colleges in the early 1980s. I have already argued (Barlow, 1981a) in favour of this approach but whilst fees remain well below costs it is worth considering how the state should provide its share. In addition it is worth exploring other possible sources of funds.

1 At present, in the university-sector, the state provides funds to the HEA, who then divide up the

money between the various colleges. These are allocated as block grants, the spending of which is at the discretion of the college. The actual way the HEA money is divided is unclear but seems closely related to student numbers. Fees are effectively determined by government. Other colleges are financed directly or via the VECs.

2 In Canada funds are allocated to colleges based on a formula of so much grant (and fee) per student. This grant per student can vary according to subject and level and according to whether government wishes to encourage or curb developments in such categories.

3 The formula system could be operated such that the fees and grants provided just for the costs of training, with research funds allocated through an independent fund on a tender basis.

For all of these systems, there is scope for institutions to obtain additional funds from outside sources. In the U.S. the private universities received 26% of their income from private gifts, private grants and endowments (Pannell, 1982). In Canada, where government support is of a level comparable with here, one or two per cent of their incomes comes from private giving, from the parents of students, from graduates and also others not directly associated with universities. They request such funds in order to give their universities the margin of excellence. In our present climate it is more relevant to our margin of survival.

Raising such large amounts of money requires consistent and sustained investment over a number of years to persuade prospective givers of the importance of their parting with their jealously guarded wealth. It requires organisers and ambassadors and these require pay.

In the face of government restraints on spending such approaches are just beginning here. All the NUI colleges have availed of private monies for developments. UCD and UCG have alumni associations and UCC is to follow suit.

IV Conclusions

There are numerous models for financing third-level institutions and third-level students. Many involve considerable government intervention. The harsh economic climate for government, for the colleges and the students might be softened if more time was directed towards developing the alternatives. Without an enterprising examination of such alternatives the prospects for higher education in the next few years seem bleak.

REFERENCES

Barlow, A. C. (1981a) *The Financing of Third-Level Education*. Economic and Social Research Institute, Paper No. 106, Dublin.

Barlow, A. C., (1981b) "Financing Aspects of the White Paper on Educational Development". *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. XXIV, Part III.

Morris, A. and Sizer, J. (eds.) (1982). *Resources and Higher Education*.

Pannell, P. F. (1982) "Finance and the Future of Higher Education in New England", in *Financing Higher Education : The Public Investment*. Joy, J. C. and Bernstein, M. H. (eds.), Boston : Auburn House Co.

Department of Education (Ireland), (1984). *Programme for Action in Education 1984-1987*. Dublin : The Stationery Office.

Woodhall, M. (1982). *Student Loans : Lessons From International Experience*. London : Policy Studies Institute.

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SOME PROBLEMS IN THE FINANCING OF SECOND LEVEL EDUCATION

John Sheehan

To many people, the title of this paper might seem to refer to the adequacy or otherwise of the amount of resources provided in our schools. For the most part, however, I want to examine the question of how rather than how much, in other words to discuss the methods used to finance second level education and their probable consequences.

A preliminary observation is nevertheless appropriate on the question of recource adequacy as seen by the economist. Educational decision-makers are largely removed from the discipline of the market-place, whether they be teachers, school principals, executives of a V.E.C., or even ministers. Resources accrue to them ultimately from the Central Government Exchequer and are "free" in the sense that every extra £ is a gift or grant with no price to be paid. In technical terms the marginal cost of funds is zero to the educational decision-maker. Acting as economically rational beings they will of course seek to expand expenditure up to the point where the marginal benefit from the last £ is also zero. This implies a virtually unlimited desire to spend more as extra money (usually) brings some benefits. Therefore, one might reasonably assert that if the budgetary allocation for second-level education were doubled immediately, that under existing allocation procedures educators (once they had recovered from the shock) would still press for "more".

Two Principles : Equity and Efficiency

As with many other areas of public policy, methods of financing education can be assessed on equity and efficiency grounds. The former presupposes that some essentially political process can provide us with certain operational criteria about what is considered fair or equitable in distributing or re-distributing resources - for example, what weight does one give to the fact that a certain policy transfers a certain amount of income from one group to another? The importance of the latter (efficiency) aspect should not be forgotten, even in an area such as education. Inefficient allocation of resources implies lower production of educational services and lesser opportunities to consume or avail of those services for someone, somewhere.

The two principles may be usefully examined in more detail.

(i) Equity : The crucial distinction from the equity perspective is between universal and probably compulsory education on the one hand, and non-universal (and therefore de facto selective) education on the other. In Ireland the former is by and large synonymous with primary and junior cycle second level, and the latter with senior-cycle second level and beyond.

Universal education financed through taxation, and ignoring for a moment the details of how resources are allocated to the schools, may be viewed as a transfer of resources from one generation to the next. Alternatively it may be regarded as a transfer of resources from one's relatively affluent years as an earner/taxpayer to one's relatively cash-starved youth. Either way, there seems to be little worry about the equity of such transfers, especially when one remembers that greater educational attainment (arising from purely within the universal level) is likely on balance to lead to higher earnings and tax payments.

Selective education financed from (universal) taxation introduces a new and significant dichotomy between payers and beneficiaries. Equity problems are likely to be important if beneficiaries are not judged *on some set of specific equity criteria*, to require subsidization. The problem is more acute if education leads to better (expected) job opportunities and higher lifetime earnings. One may then have a *regressive* transfer of resources from average-income taxpayers[1] to greater-than-average-income beneficiaries. Of course the problem becomes even bigger at third level.

There is a second equity problem which has become entangled with the one just mentioned, and the entanglement has been a source of mucy confusion. Individuals differ enormously in initial intellectual and financial resources at entry into the first or second level, due to family and social background to a considerable extent. It is generally agreed that there is a case in equity to compensate for such background differences in order to achieve a greater measure of equality of opportunity.[2] The chosen instrument (especially at second level) is the subsidization of all schools across an entire system. This is an inefficient and inappropriate instrument as the differences adhere to individuals. Attempts are often made to graft some more specifically compensatory mechanism on to such a structure, usually taking the form of educational priority areas, help for disadvantaged areas, etc. If school catchment areas are small and have distinct social characteristics, such schemes may have a justification.[3] But these schemes would be quite inappropriate for much of the Irish second-level system, where outside the larger urban areas, catchment areas are socially quite mixed, and where more precise, individually-targeted policy instruments may be necessary.

(ii) Efficiency : A particular aspect worth considering in the Irish context is whether over the second level of education as a whole, spending is allocated in such a way as to equalize the marginal benefits accruing to spending in different types of school. If this is not the case then the overall benefits from education could be increased within the present budgetary constraints by transferring some resources from one type of school to another.

If different components of the system (Secondary, Community, Comprehensive and Vocational) are administered separately, and if the procedures vary for deciding how much resources schools receive, then efficient resource allocation is unlikely to occur. This would seem to be the case in Ireland and it may be compounded by procedures which in some cases provide little or no incentive towards efficiency within schools. Is there a case for transferring funds from (say) Community to Vocational Schools? The present administrative and accounting system does not throw much light on such questions.

Some Possible Developments

I am not giving to indulge in the favourite practice of economists of advocating some totally new, optimal system of finance. Instead I want to concentrate on more piecemeal proposals, which nevertheless may appear radical to some entrenched interests, but which might have some long-term chance of being implemented.

Junior Cycle : As this is virtually universal, efficiency rather than equity problems would seem to predominate. The basic principle of tax-financed subsidization of schools is not in question, but rather the mechanism by which the subsidies are determined. For the moment we leave aside the question of compensatory resources for disadvantaged individuals. We will also leave aside building finance.

Community, Comprehensive and Vocational schools (excluding teachers' salaries which are effectively on a *quasi-capitation* basis) are financed on what is known as a *budget basis*. This is essentially an *input*-related procedure whereby school administrators[4] estimate annual financial requirements for various items and arrive at an annual settlement with a budgetary authority. Community and Comprehensive schools negotiate current budgets individually with the appropriate Departmental officials. As the number of such schools grows, there are efficiency and public accountability arguments (for drawing up more formal and public financial guidelines. Vocational schools, while operating in a more decentralized system, suffer from the problem that they offer several types of course and have not developed an appropriate accounting or budgeting system. Almost twenty years ago *Investment in Education* (1965) estimated current costs per student for eleven types of course then offered in Vocational Schools. The data series was never continued, so we have been in almost total ignorance about course costs ever since. Instead we have information on V.E.C. costs by categories such as Administration, Instruction, Maintenance (and their detailed subdivisions), which is practically useless.

Decisions have to be made periodically about trade-offs between places in various types of course, and about fee levels for certain courses. Official policy on fees ranges from zero to 100% of direct course costs. If one does not know course costs one cannot implement the policy. More important, one cannot know the true opportunity cost of providing more places in a particular course - whether within Vocational Schools or within the second-level system as a whole.

What is needed for *all* second-level education is education is a series of per-pupil standard costs for various courses, and a scheme of capitation grants related to such costs. Grants could vary from 100% of the relevant costs (where "free" education is the policy norm) to zero, where "full-cost" fees are to be charged. In addition, grants could be varied by certain percentages according to various indices of "need" : small school size, number of disadvantaged pupils, unemployment rate in catchment area, etc.

Setting up such a system would involve heavy initial administrative effort (and dislocation) and a significant investment in cost-accounting expertise. Once established however the system could be run by one civil servant sitting at a computer terminal. The present system, involving detailed and complex budgetary and negotiation procedures and detailed sanctioning and checking of specific expenditures is extremely wasteful of administrative resources by comparison. Part of the reason for this is that at present the system removes almost all incentives from school principals to exercise judgement and to effect economies. If one underspends on X one may not be able to transfer the savings to Y (which one knows needs more money), and furthermore any savings this year can not be carried forward, and indeed may be used as an excuse to reduce next years allocation. The incentives are if anything biased towards extravagant behaviour and must therefore be countered by a heavy layer of bureaucratic checks.

The inadequate design of capitation systems should not obscure the potential benefits accruing from well designed and administered systems. Naturally they are not an answer to all financial problems, especially those arising from special building and repair needs. But they do devolve decision making down to the school level, where knowledge of requirements ought to be maximized, and they also enable one to divert central administration away from routine matters and towards greater emphasis on policy-related issues.

Senior Cycle : The foregoing comments also apply to the Senior Cycle of second level, but there are additional questions arising from the non-universal nature of this level. The main question is one of equity : should one direct more funds to pupils and their families, and perhaps less to the schools?

Some significant drop-out after Intermediate Certificate (or at age 15) is probably inevitable either because of pupils' preferences or because of lack of ability to benefit sufficiently from any more fulltime education. However drop-out may also be due to the specific disadvantage of not being able to finance the various costs (out-of-pocket expenses plus foregone income) of keeping a 16 or 17 year old at school. This problem would seem to call for appropriate financial aid in the form of school maintenance grants. However before implementing such a scheme we would need to know to what extent the post-15 drop-out is due to financial factors. At present we do not know this.

A further consideration is that which was raised in Tussing (1978) : education at this level is not universal, and as it brings economic benefits why not levy fees on the beneficiaries? Combining this consideration with the previous one (financial disadvantage) would imply a means-tested student and scheme at second level together with a policy of charging fees. The level of grant aid could vary from zero to over 100% of the school fees, depending on parental income, and any desired pattern of incentives could be achieved.

There are however problems with such policy proposals in the context of present realities (as opposed to "first-best" principles):

(i) Leaving school now qualifies one for aid from various youth-oriented programmes so the equity issue is considerably blunted.

(ii) Marginal tax rates are so high on low incomes that means-tested benefits may create huge problems - even effective marginal tax rates of over 100% - when one adds up all taxes and benefits.

(iii) Experience of student aid schemes at third level is particularly discouraging. Failure to adjust (not index) for inflation for several years followed by periodic election-time generosity had led to wide fluctuations in real grant levels. Previous bad habits would have to be unlearned : would this be particularly difficult for educators?

REFERENCES

1 This statement begs certain questions about the progressivity or otherwise of the tax-structure. I am assuming that the tax structure as a whole is proportional, which seems to be a reasonable approximation over most of the income distribution.

2 Some people might argue for a stronger version of what is said in this sentence. However the main point is that there seems to be fairly universal agreement on what is stated in the text, as a minimum.

3 It may be the case that socially-distinct and homogeneous catchment areas reinforce educational inequalities. An alternative to compensatory policies (especially in the long run) may be the abolition of such catchment area differences.

4 The term school administrators is used in a general sense. In a community school it probably refers to the principal; in the VEC system the C.E.O. would probably be the relevant person.

5 Unfortunately Tussing's use of the terms public and private benefit did not help to clarify the argument and the present author prefers to avoid them.

Investment in Education (1965) : Report of a survey team appointed by the Minister of Education in 1962. Dublin : Stationery Office.

Tussing (1978) "Irish Educational Expenditure - Past Present and Future". Paper No. 92. Dublin : Economic and Social Research Institute.

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COMMUNITY WORKSHOPS IN THE YOUTH TRAINING PROGRAMME

Rosemary Kilpatrick

Community workshops (which are variously described as workshops, work preparation units or WPUs), were introduced into Northern Ireland in 1978 as a major new initiative in the then Youth Opportunities Programme. The present network of 42 workshops continued to be one of the main elements of the Youth Training Programme when it was launched in September 1982.

The workshops, which generally operate in the areas of highest unemployment, are dispersed throughout the province. They are organised and operated by community groups including industrial, educational, youth and community interests. In most instances the groups which manage the units have banded together for this purpose. All workshops are limited companies and the majority are registered under the Industrial and Provident Societies Act. The Department of Economic Development (DED) provide a large proportion of the funding, as well as advice and technical support, especially in the early stages of planning.

The main objectives of the WPUs are the personal and vocational development of the young people involved, and their placement in suitable employment. To this latter end workshops are careful to cultivate relationships with local employment outlets and encourage the young people to see employment as their goal.

The number of trainees in a workshop varies greatly from the largest unit, which provides 130 places, to the smallest, which in contrast offers 30 places, with the percentage of boys to girls usually being about 60 to 40. However, before rushing to accuse the workshops of sex bias it must be remembered that there are proportionally more boys than girls in this age range at present, that more girls remain in full-time education after the age of 16, and that there are more unemployed males than females in this age group. It is therefore extremely likely that there would be more boys than girls in YTP as a whole.

The young people are recruited by the workshops through local careers offices and receive a broadly-based training in a range of vocational skills for up to 52 weeks. After their first year at a workshop they can, if they so wish, stay on for a further year, when they specialise in an activity selected from those previously sampled. Most workshops advertise themselves by means of publicity leaflets and they are also keen to arrange visits by pupils from the local schools.

There is an extremely wide variation in the number and range of skills offered by the various centres, some having as many as 20 skills to choose from while others may have as few as four. These skills range from the traditional painting, decorating, bricklaying and engineering (both auto and mechanical), to the more usual ones such as jewellery, glass engraving, horticulture and animal husbandry. This latter section is particularly interesting since it covers several unexpected activities such as breeding canaries and budgerigars for pet-shops, rearing quails for local "high-class" restaurants and the breeding of pedigree rabbits which have won numerous prizes.

Training in such vocational skills is given meaning by encouraging the workshop to provide real goods and services which do not compete with existing jobs, and especially by promoting the provision of services to the local community. Such aims are usually achieved by means of project work.

The Further Education element of the YTP, which is compulsory for all trainees in the workshops, is generally provided by the local college of further education. This provision is tailored as far as possible to meet the needs of each individual and therefore could range from basic literacy and numeracy to skill-related classes or formal examinations. However, difficulties have been encountered in this area.

Though day release is the usual way of offering the FE element, two of the units in our sample have turned to alternative solutions. One of these is the appointment of a full-time education officer, while the other is to offer a block of three months further education at the end of the guaranteed year. Only time (and our research) will tell how successful such alternatives can be.

Until recently work experience on employers' premises was an 'optional extra' for many young people in workshops. This was due to the fact that the centres tend to be located in areas of high unemployment where there is obviously a scarcity of local firms able to provide such an opportunity for the young people of the community. However work experience has just become a compulsory element of the YTP for all providers, regardless of such problems, and workshop managers are endeavouring to make appropriate arrangements for at least a proportion of their trainees.

The staff in the workshops are appointed and employed directly by the management committee of each unit. The control of each workshop therefore lies heavily in the hands of these committees and the staff they appoint. This results in a diversity of philosophy across the various units. Such diversity is most clearly apparent when one considers the disciplinary procedures used in the various centres. These vary from one workshop's habit of suspending trainees for poor time-keeping to the opposite extreme where the managerial staff feel that disciplinary procedures are to be avoided at all costs. They further argue that if there is a need for such action this is a reflection of poor management on the part of the workshop, and indicates the need for further guidance and counselling for the youngster.

Common to all workshops is the provision of a working environment, and to this end the trainee's day is structured in a similar manner to that of the working man. Furthermore, a close liaison is maintained with DED through a development officer, who monitors all aspects of the performance of the unit.

The staffing of the workshops usually includes a manager, an assistant manager, a development supervisor and a supervisor for each of the skills offered, though staff numbers obviously depend to some extent on the size of the unit. It is the development supervisor who is most closely involved with the personal development of the trainees, since the counselling and guidance of the young people is his (or her) responsibility. This is an integral part of the course, and is provided, to some extent anyway, by all those who come into contact with the trainees. The development supervisor is also in charge of the profiles which are the means by which the trainees' progress (both vocational and personal) is assessed.

I have selected a 'typical' workshop, insofar as any one centre is typical of these diverse units, to illustrate a trainee's experience in such a centre as he passes through his guaranteed year. The unit lies in an area of high unemployment, hit hard by the 'troubles'. The workshop offers a total of 116 places, 30 of these being a guaranteed year, though they currently have 36 youngsters, 20 boys and 16 girls, in such places. Staffing consists of five managerial staff and 16 supervisors plus three ancillary staff. The young person normally comes to the workshop by way of the official procedure - i.e. sent by his careers officer, though it is not unknown for potential trainees to simply 'land on the doorstep'. Regardless of method of arrival the young person is interviewed by the development supervisor, and at the same time this particular workshop also gives a short literacy and numeracy test, though no one is ever refused a place. Next, the trainee is shown around and given some idea as to possible progress through the workshop and asked if there is any particular section he (or she) is interested in. Strictly speaking the trainee can, at this stage, say he doesn't fancy the centre but this has never happened! The development supervisor did point out that this was not solely because they have a good workshop - which of course they have - but also due to the fact that the trainees are often immature and reluctant to, or incapable of, making decisions for themselves.

The trainee's course starts with a week's induction period when he quickly learns the basic rules and regulations of the workshop, such as the fact that everyone, regardless of status, clocks in at 8.00 each morning and the day does not finish until 4.30 in the afternoon. A half day on Friday is a well-earned reward for the early start to the day, plus the £25 per week pay, though few of the trainees feel such an amount is adequate!

During the week's induction the young people are also given instructions in health and safety as well as being informed of their rights and obligations. At the same time they observe and try the various skills offered and select a module, the latter consisting of several separate but related skills. Seven modules are offered at this particular workshop, these being construction (joinery, plastering, bricklaying and plumbing), engineering (car mechanics, iron turning and welding), office practice (reception, typing, book-keeping and filing), personal services (hairdressing, community help and child-care), handicraft (sewing, upholstery, painting and decorating), catering (all aspects) and computer studies. The first six months are spent sampling each of the skills in the selected module and then the trainee can either go on to specialise in one or two of these skills or alternatively choose another module. Everyone, regardless of module selected, spends a fortnight in the computers section. Time spent on each skill in a module depends on the number of different skills involved. For example in a module offering three different skills time spent on each section, or skill, will be five weeks, with the two weeks on computers and one week induction making up the first six months of the guaranteed year.

Extensive and impressive use is made of project work in the sampling and learning of these skills. The workshop itself is based in an old dreary warehouse spread over three floors. The trainees have already divided the original structure into rooms to house the various sections. At present they are busy giving the building a major face-lift to help make their surroundings more attractive. This is a joint effort with each section painting its own area and the painting and decorating section taking over the more general areas such as corridors and reception. A similar joint effort may be seen in the production of the workshop newspaper, to which the trainees themselves contribute articles and print the finished journal with the staff supervising the overall effort.

Other project work may involve trainees from several modules. For example under community help (one of the personal services skills), the young people 'adopt' elderly folk in the community and help them with a range of tasks. Through such work it often becomes apparent that these senior citizens have tasks such as upholstery work that needs attention. Here the appropriate section from the workshop is called into action and the person for whom the work is carried out will only be required to provide the cost of the necessary materials. Before leaving the project work of this centre I must mention two of which they are extremely proud. One of these is an ongoing one by the stitching section, which is making clothes for babies in the local hospital where there is a large premature baby unit. The second is a project that was completed last year and involved the complete refurbishing of dining-car furniture and sign-painting for the Railway Preservation Society of Ireland. This is a really impressive piece of work and is on show in a nearby railway station.

Such project work unquestionably gives meaning to the learning experience, as is its aim. Furthermore it provides motivation plus a tremendous sense of achievement and pride in one's work, both from the point of view of the trainees and the staff. Additionally it frequently brings the members of the workshop together in shared goals by helping to create a team atmosphere and encouraging the discussion and expression of ideas and opinions. All these benefits can only help to promote the personal development of the trainees. Indeed, the importance of good project work cannot be stressed enough. It often appears, when visiting the various centres, that the difference in success and failure may partly lie in such work. Units which do not provide many projects tend to be seen as boring in the eyes of the trainees and frequently fail to generate a sense of enthusiasm.

Personal development of the trainees is also prompted by means of day trips. Such trips are seen as essential by this particular workshop since many of its trainees are reluctant to move outside their immediate environment and may rarely have been to the far side of the city not to mention further afield. Several workshops are also beginning to introduce residential courses and exchange visits with other European workshops. However, the unit I am describing does not envisage any such trips at present partly because they feel their trainees would not be interested.

The social and life skills element of the YTP, which is provided for this workshop by a member of staff from the local college of further education, who takes a group of trainees once a week, is also designed to aid personal development. However, the degree of success achieved here appears to depend to a large extent on the member of staff himself, especially since the content of the course lies very much in his hands.

Attendance at the local college of further education one day a week for the FE element of the course is compulsory for all trainees at this centre. Despite this fact the young people frequently fail to turn up, opting to get £5 deducted from their pay, which you will remember they already feel is inadequate.

Few of the trainees in the centre have had the opportunity to go on work experience, due to the lack of employment opportunities in the area. Such work experience, when it does occur, is of two to six weeks' duration, depending on the firm in question. The trainees have been encouraged to try and find work experience for themselves through friends and relatives and such an approach to this aspect of the course has been reasonably fruitful.

The workshop is, of course, not without its problems. Where the skills training element is concerned the major difficulty is in ensuring that the trainees get the opportunity to sample the skills they have selected, since some modules are more popular than others. If a selected module is full the trainee may be asked to go on his second choice until a place becomes vacant, though this sometimes results in feelings of frustration on the part of the youngster. However, good negotiation between the trainee and development supervisor can usually iron out such problems. A related difficulty is the fact that the development supervisor at this workshop, and in most others, has no training in counselling. Through an awareness of this problem the person in question is now attending a part-time course, and there is clearly a need to think seriously about some form of official training for such members of staff.

A somewhat similar problem is involved in profiling - i.e. the method used to assess the trainee's progress on the skills and personal development. Such profiling requires a reasonable command of language yet is has to be completed by supervisors who are usually tradesmen and have rarely had any call to use such skills. The manager of the workshop in question made it very clear that he felt supervisors should be given some kind of training in the completion of these profiles. Such training would, he suggested, help the supervisors see the profiles as a worthwhile and valid exercise - feelings which would in turn be transmitted to the trainees themselves, and who might thus be able to see the point of the daily log books which they are required to complete.

Problems associated with the provision of the work experience element are mainly related to the low level of employment and the previously described difficulty of finding firms in the area. Furthermore, if a suitable place is found the unemployed adults in the area may feel that the trainees are keeping them out of jobs. This would obviously lead to ill-feelings between the workshop and the local community, which is completely against the philosophy behind workshops. The introduction of compulsory work experience has further exacerbated this problem, and to find suitable placements this particular centre has found it necessary to go outside the immediate community. However, the trainees express a real fear of moving outside their familiar surroundings and such reluctance has already resulted in the termination of one trainee's contract. This is particularly sad when one learns that a second trainee was persuaded to take up the placement in question and thoroughly enjoyed her experience.

Related to the problems of finding work experience places is the question of finding employment at the end of the guaranteed year - employment which is clearly stated as the ultimate aim of the workshops. As you can imagine there is little opportunity of finding a job in an area where unemployment may run as high as 50%. Last year only 2% of the trainees found jobs. It must be stressed that this difficulty depends on the location of the workshop - other such units located in more prosperous areas have succeeded in placing as many as 30% of their trainees in employment.

I will now move onto the broader problems associated with workshops, the major one here being to do with numbers. The young people in tightly knit communities in Northern Ireland tend to be insular and see the community workshop as being the only provider of YTP. This results in a refusal to consider any other scheme and those unemployed school-leavers in the area who can't get into the workshop tend to go onto the dole. The obvious solution to this problem would appear to be simple: i.e. to increase the numbers in the workshop. However, such a solution only encourages the 'ghetto' like situation that occurs in certain areas of Belfast, and thus there is a stalemate situation.

So far I have only talked about what the workshops provide for the trainees. Before I close I would just like to mention the community aspects of the workshops and indicate that these centres are designed not only to provide for the needs of the unemployed young people in the area, but also hope to play a significant role in developing community competence, business confidence and initiative. Through the WPUs the local community is being given the opportunity to create, manage and develop industrial workshops. This, in turn should contribute to the development of a wider competence in business and industry in areas severely affected by unemployment. The workshops can therefore contribute, through experience and education, the development of features necessary to the economic progress of the province. Some instances of the beginnings of such a contribution by local workshops may already be found. Take for example two boys in Derry, who, after having spent the year at the local Work Preparation Unit developing skills in upholstery work, started their own business in an old garden shed, which has now expanded into a flourishing business employing several members of the community. Similarly a community workshop in Belfast which offers pottery as one of its handicraft skills is developing a growing business in this field.

In summary, the high degree of diversity across workshops must be acknowledged even if such diversity had led to varying degrees of success. Success cannot simply be measured in terms of the numbers of young people placed in jobs, though this is one of the main aims of the centres, since such jobs depend very much on the local level of employment. Success is perhaps better considered in terms of how much the workshop has offered the trainee in terms of personal and vocational development and the degree to which the community has benefited.

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EDUCATION AND TRAINING FOR 16 YEAR OLDS

NEW APPROACHES IN NORTHERN IRELAND

Jean Whyte

(i) THE YOUTH TRAINING PROGRAMME : RESEARCH BY NICER

The transition from school, with its connotations of structure, discipline and dependency, to adulthood with its implications of independence, responsibility and being a productive member of the community is a stage in life which is experienced by everyone in the population. Circumstances may conspire to cause problems and inhibit the course of what is usually deemed to be 'normal' development, preventing or delaying the progress of the individual towards recognised adult status. If such a situation arises there will be repercussions both from the point of view of the individual concerned and from the point of view of society as a whole. Current figures indicate that this situation is real for more and more young people each year. Employment is one of the factors which helps people to achieve adult status; it bestows an identity; it gives them money in their pocket, assists in structuring and ordering their time, makes it possible for decisions to be made about life events - like getting married, buying a house, leaving the parental home. Employment is becoming scarcer and scarcer, especially for young people leaving school. Figures for Northern Ireland (Table 1) indicate a steady increase in the numbers of unemployed school leavers, especially since 1978.

The reasons are many and complex. They may be seen as falling into two main groups relating respectively to a) the situation presented by society to the young person leaving school, and b) the qualities developed in the young person to prepare him or her for that situation. For many years, the match between these two sets of elements appears to have been more or less acceptable in terms of overall statistics although undoubtedly there were instances of individual hardship and frustration. In terms of the numbers unable to find employment either because of lack of employment opportunities or because of their own lack of preparation, the problem was negligible. But now, in the '80s all is changed. Suddenly young people are faced with a shortage of employment opportunities, and also with a serious degree of mismatching between what they bring to the workplace and what is being demanded of them when they get there.

It is clear that many young people leave school without having obtained much in the way of educational qualifications (24.3% left school in Northern Ireland in 1981-82 without any formal qualifications). Many of them have failed also to acquire elementary skills or basic information or even attitudes which would be relevant for the world of work. Such young people frequently also have low self-esteem, which compounds their problems in adapting and learning. Their expectations of what society owes them and of what they owe to society are very different from those of their parents. In earlier times, people with low educational attainments could somehow be absorbed into the labour market and many eventually did very well. But times are much tougher now. Money is tight, and the pace at which firms must operate just to keep going means that there is less time and patience available to ease these young people gently into adulthood.

Some of the reasons for the problem undoubtedly lie in the lack of general preparation for life, including poor attitude formation. but a further explanation may be fruitfully sought in the changing nature of industry and trade. There is less unskilled work available, there is more demand for skills even in the lowest paid jobs; an understanding of elementary aspects of technology, never mind basic literacy and numeracy, is expected of anyone who hopes to be employed. This means, in fact, that frequently even those who *have* attained qualifications before leaving school are not adequately prepared for the world of work since their curriculum at school is too distant from the needs of the workplace to be of use. Life has become more complex and 'coping skills' have assumed a new importance. Knowing *why* and knowing *how* are as vital now as having actual information at your fingertips was in the past. Flexibility of attitudes is essential. Whereas previously a person might expect to stay with the same employer all of his or her working life, such security of tenure is now much rarer. Some attention is now being paid to a differing emphasis - instead of thinking of employment being offered to or provided for young people, attempts are being made to encourage them to think in terms of developing employment opportunities for themselves.

It was against this background of rising unemployment and concern about the calibre of young people entering the labour market that the Northern Ireland Youth Training Programme was launched in September 1982. It has two main goals:

1 To lay the foundation for the skilled workforce essential for economic growth in an increasingly technological world;

2 To assist young people to make the transition from

school to adult life.[1]

In order to achieve these goals, the Youth Training Programme aims to help the young people who participate in it:

(i) to acquire a range of basic skills and knowledge relevant to working life;

(ii) to enhance their understanding of the world of work and of the dynamic social and economic environment;

(iii) to assess their own potential and relate this as realistically as possible to possible careers;

(iv) to develop the personal qualities and attributes required of the mature adult.[2]

The main features of the programme as announsed are:

(a) a guaranteed year of education, training and work experience for school leavers aged 16 who have not found employment;

(b) a range of opportunities for 17 year olds who have completed the guaranteed year and have still not found employment;

(c) educational and training opportunities for young people at work who had not been receiving adequate training;

(d) additional vocational preparation for young people remaining in full-time education;

(e) the introduction of certification arrangements based on profiling.

The programme is a far-reaching one in that it is intended eventually to encompass all the young people in the age group. The NICER research project is concerned with only one of these groups of young people - the 16 year-olds who are unemployed. The next part of the paper will therefore describe the programme as it applies to this group, the means by which they gain admission to it, and the settings in which it is experienced. The final part of the paper will outline the aims, methods and relevance of the research project being undertaken by NICER.

THE YOUTH TRAINING PROGRAMME

Places have been allocated for 16 year-olds in their guaranteed year to five main providers. These places have been sanctioned by the Departments of Economic Development and Education and are supported by those Departments financially. All places are open on an equal basis to boys and girls. Every provider submits its course outlines and syllabus to the Department. There is a certain amount of freedom in course content but some elements are obligatory. These include:

i) training in work skills (the range depends on the provider);
ii) work experience on employer's premises (arranged by the course provider);
iii) further education (arranged by the course provider usually in conjunction with the local college of further education on a day release basis).

Integrated into these elements the Department of Economic Development envisaged the following components:

a) guidance and counselling;
b) basic skills common to all kinds of work and life experience;
c) negotiation;
d) relevance to the young person's needs.

Providers are encouraged to make available a range of experiences, so that the trainees may sample a variety of skills, and a variety of work situations, at least in the first few weeks of their course. In the following months they may specialise in one or two skills of particular interest and in the final period, they may specialise in just one area.

The length of courses or schemes ranges from three months to twelve months. Young people may opt for schemes of any length and apply for another as each course finishes until they come to the end of their guaranteed year. Some courses have definite starting dates, once a year; others have several starting dates in the course of the year; a few allow 'continuous recruitment'. In practice there can be problems in arranging transfer and orderly progression from one scheme to another in the course of the year.

Two further details complete this outline of the programme:

1 A weekly allowance of £25.00 is paid to all trainees. In addition any expenditure on transport in excess of £3.00 is reimbursed.
2 All trainees complete a 'log' or 'profile' regularly in which they describe what they have been doing and their reactions to it. This is reviewed at six-weekly intervals by the course tutor or supervisor, or in some cases the careers officer. Summaries are prepared at longer intervals and are agreed between trainee and supervisor. A certificate based on this profile is awarded to each trainee at the end of the course. The profiling system is based on that developed by the City and Guilds of London Institute.

ACCESS TO THE PROGRAMME

On leaving school, every young person seeking employment registers at the local jobmarket as being available for work. There are jobmarkets (N=26) in all the major towns in Northern Ireland. In each job-market there are several careers officers who are employed by the Department of Economic Development. They have a qualification in careers guidance (or in some cases, are working for a qualification). The careers officers will, in many cases, have already seen the young person while he or she was at school for it is part of their work to co-ordinate their activities with those of careers teachers and they frequently interview pupils during their final year or term at school. On registering at the job market, the young person is invited to see the careers officer who then attempts to offer advice and guidance on the choice of scheme, taking into account the interests, disposition and abilities of the young person, and what is currently available. Places are not limitless, and while most providers are represented in every area of the Province, there are gaps here and there.

THE PROVIDERS

There are five main types of provision : Government Training Centres, Colleges of Further Education, Community Workshops or Work Preparation Units, Youthways, and Employer-Based Schemes.

1) Government Training Centres are fully funded by the Department of Economic Development and they offer a six-month course in Basic Vocational Training to 16 year-olds (as well as other courses to other groups). Trainees select four modules, each lasting five weeks and they also have five weeks on work experience outside the GTC. One day per week is spent at the local technical college and some educational input is also undertaken in some of the GTCs. Students select either two engineering and one construction module, or vice versa, and their fourth module is taken from one of these

or from a further group of modules which includes automotive, decorating, plastics, textiles and craftwork and artwork. At the end of the six months they may apply for an apprenticeship, which will enable them to stay on at the GTC and to specialise in the trade of their choice. Standards are very high, and only about 50% of all those who are accepted for Basic Vocational Training are likely to be accepted for apprenticeships. Those who fail to qualify may apply for 'Advanced Vocational Training' in the GTC which does not count towards an apprenticeship but which will make the young person more expert and proficient in the trade of his choice. This is again a six months course. Staff student ratio is 1 : 12.[3]

2 Youthways courses are attached to colleges of further education. They were started first in 1976 to cater for the group labelled the 'five 'u's' - unqualified, untrained, unmotivated, unemployed, undereducated. The major components of the course are:

a) Skills and practices - practical experience in various sectors of employment - usually three days per week for at least part of the course;
b) industrial and environmental studies;
c) communication studies;
d) general activities, including a wide variety of leisure pursuits;
e) personal development.

Because most of the young people have been alienated by their experience in school the emphasis is above all on informal methods of instruction, on building self-confidence and the ability to cope with everyday life. All instruction is supposed to arise as far as is feasible from the practical activities which they undertake. Courses always include two residential weeks.

The young people are removed to another environment for the induction phase of the course, in the first week, and week eight is also residential and offers opportunities to sample outdoor pursuits. The duration of the courses we looked at was sixteen weeks in some areas but in other areas the courses have been extended to cover the full school year. This had logistical advantages as well as offering the young people a greater length of time to form a foundation on which to build subsequently. The staff/student ratio is of the order of two staff per fifteen young people.[4]

3 Colleges of Further Education offer full-time YTP courses under various headings. Some are broad-based; some more specialised; some may lead to part of a qualification, others give a more general preparation. Most of the 26 colleges in Northern Ireland offer several courses and they try to cater for a range of interests and needs, taking into account the extent of other provision locally, the needs of industry and the level and interests of the young people. Courses last for the full academic year except for one or two specialised ones, like basic education in one college. In addition the colleges offer further education on a day release basis to young people in other schemes. This type of full-time provision was expected to make the biggest contribution to the Youth Training Programme and the number of places allocated to courses in colleges of further education was greater than the number allocated to any other type of course. For this reason, and also because further education colleges share some of the characteristics of technical schools and colleges in the Republic we have selected this area for a more detailed study.

4) Work Preparation Units are also known as Community Workshops. They are organised and operated by community groups and managed by boards which include local industrial, educational, youth and community interests and which have usually come together specifically for the purpose of organising the workshop. They are limited companies and register under the Industrial and Provident Societies' Acts. The workshops try to provide real goods and services which do not compete with existing jobs in the local community and they try to cultivate relationships with local employment outlets. They are partly funded by the Department of Economic Development and have to cover certain costs themselves. Each workshop normally has a number of sections, with each section carrying out a different kind of activity - painting and decorating, joinery, office work, catering, are pretty standard and, as you will hear from my colleague, some of them have branched out into more exotic occupations. Young people entering a workshop can usually choose from a variety of sections, and frequently can sample a number of activities before opting to specialise in one. Young people may stay in a workshop for up to one year. Staff student ration is 1 : 10.

These workshops are a very exciting development, being community based. For this reason and because they have some features in common with AnCo-run workshops in the Republic we have selected them for special study in this symposium and a paper on this topic will be presented by Dr. Kilpatrick.

5 Employer-based schemes. An employer who is prepared to take on a young person contacts his local jobmarket and is visited by a development officer who assists the employer in drawing up a plan of what can be

offered to the young person. A form is completed and if eventually approved this constitutes a *'place'*. The employer undertakes to provide the range of experiences for the young person which have been specified and approved and in return he is given an allowance of £10.00 per week. The young person then works on the employer's premises for four days per week and attends the technical college on the fifth day. He is visited in the course of his programme by the careers officer in charge of him and perhaps also by the development officer in charge of the placement. The programme may last for up to a year but its length is specified on the plan - it can be as little as three months. After that the young person returns to the careers officer, who should be able to offer him or her another placement.

THE SAMPLE

A total of 8141 places was planned for the Youth Training Programme during 1983-84; and these were divided among the various providers. The research project design was based on a 1 in 10 sample overall, taking from each provider in proportion to its allocation, and from each region a similar number (Belfast was counted as two regions). The accompanying table illustrates what happened. It may be seen in terms of the original plan our sampling frame 'worked'. As you are probably aware however, the number of places actually filled on the Youth Training Programme fell far short of expectations this year, so in terms of the number of places filled, our sample represented more than 1 : 10 (Table 2).

METHOD

The aims of the investigation are twofold:

a) to investigate the implementation of the guaranteed year curriculum in the Youth Training Programme;

b) to obtain and assess participants' reactions to the curriculum in the short and longer term (see attached summary).

It is being undertaken in stages throughout the year from September 1983 to August 1984, with a follow up after that date.

There were two basic questions to be answered initially. They are in the end complementary, but had to be approached separately at first:

1 what is curriculum?
2 who are the participants:

Information on the first of these was obtained from official publications which outline the essential elements of the curriculum. Individual providers have a considerable amount of freedom in interpreting these requirements however - and it is of course this aspect of the programme which ensures a range of choice for the young person. Our first task was therefore to establish the structure and organisation of curriculum delivery by the providers in the sample. This was achieved through interviews with the people at the top. In many cases there were prepared outlines available and clarification of details enabling us to make comparisons between providers was all tnat was necessary.

The second stage on this aspect is to interview people actually at the coal-face delivering the curriculum - the tutors, instructors, supervisors and teachers in the various premises. Each young person comes into contact with a range of such persons, so a sample has been selected to give a range across the province, across providers, and across courses. Their interview schedule includes five sections - topics covered, methods and materials, planning basis, general comments, and attitudes towards staff development. It is planned to use a modified version with employers.

On the second question we sought information from the young people themselves, and from careers officers. The young people undertook attainment tests in vocabulary, reading and arithmetic and we obtained information on their school careers and examination performance. We know about their socio-economic background and their aspirations. They completed a questionnaire soon after they entered which was designed to find out why they had applied for the programme and this established their initial reactions to it and their expectations of it. A second questionnaire which the same young people completed after Christmas attempted to probe more deeply into the actual curriculum and their reactions to it. A further strand will be provided by careers officers whom we plan to interview in depth in the coming months.

Since this study is attempting to chart their progress and any changes in their responses during the year, it is planned to approach the sample at least one more time, after Easter, with a final questionnaire, asking their impressions of the programmes. In addition, we plan to follow up at least a proportion of the sample after the end of their year, and to record their impression in retrospect as well as information about their destinations.

The study began in August 1983 and will run until July 1985 with partial funding from the Department of Economic Development. Three members of staff are working on the project: one for 12 months, a second for 18 months, and the third for two years with back up expertise and secretarial assistance from the NICER Unit. No results are available yet but we anticipate that the findings will be of widespread interest and we hope to be in a position to report back to you at some future date.

TABLE 1 Unemployed School Leavers in Northern Ireland

	Total in age group[1]	Unemployed school leavers[2]	Unemployed school leavers as % of total
Jan 1978	39700	3500	6%
Jan 1979	59800	2900	4.8%
Jan 1980	60000	3000	5%
Jan 1981	60100	6000	10%
Jan 1982	59200	6600	11%
Jan 1983	60200	8787	14.6%

1 The age group comprises two-thirds of 16 year olds, all 17 year olds and one-third of 18 year olds. The figures are approximate.

2 Those who have left school and have never been employed; approximate figures. The total figure for youth unemployment is higher - these figures relate to the target group for the project.

TABLE 2 Sampling Frame NICER Project on Youth Traini

YOUTH TRAINING PROGRAMME

Provider	No. of Centres	Planned Places	Occupied Places Nov 30, 1983
Government Training Centre	11	2183	949
Work Preparation Units	42	937	1374
Further Education Colleges	26	2678	1356
Youthways	(15)	575	575
Employer-Based	(26)	1748	807
Routeways/Basic Education			

ct on Youth Training Programme

GRAMME			PROJECT SAMPLE	
Occupied Places Nov 30, 1983	No. of Centres	No. of subjects per Centre	No. of Centres	No. of subjects 30 Nov, 1983
949	6	30-40	6	224
1374	6	15-20	6	164
1356	6	45-50	6	247
575	5	15-20	5	106
807	6	20-30	6	137
	2	10-20	2	43

REFERENCES

1 Department of Economic Development and Department of Education for Northern Ireland (1983). Youth Training Programme : Plan for 1983-84. Belfast : HMSO.

2 Department of Economic Development and Department of Education for Northern Ireland (1982). A Comprehensive Youth Training Programme for 16/17 year olds in Northern Ireland. Belfast : HMSO.

3 Department of Economic Development and Department of Education for Northern Ireland (1982). Manual : Youth Training Programme. Belfast : HMSO.

4 Department of Education for Northern Ireland (1979). Youthways : Manual of Notes for Guidance of Tutors. Belfast : HMSO.

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THE ROLE OF FURTHER EDUCATION COLLEGES IN THE NORTHERN IRELAND YOUTH TRAINING PROGRAMME

Colin McIlheney

Since the introduction of the Youth Opportunities Programme (YOP) in 1978, Further Education Colleges in Northern Ireland have played a prominent part in the special measures which have been adopted to deal with the spiralling levels of unemployment amongst school leavers in the province.

Numbers of trainees on courses of this nature have risen sharply from 340 in October 1978 to 716 in October 1981 and 1400 in 1983. Large numbers of staff have been recruited to cope with what was regarded as a new clientele with differing needs and requiring new approaches from teachers. Underpinning all types of the new F.E. provision, be it a full time work preparation course, or the day release element for trainees from other providers, is the philosophy outlined in the key circular 1978/10 from the Department of Education, Northern Ireland:

> Special emphasis should be placed on provision for those 16-19 year olds who appear to have derived least benefit from their years at school and who are therefore most in need of further personal and social development. This will involve the adoption of a new and more flexible approach to provision than has been required in the past. [1]

The Youth Opportunities Porgramme was heralded as an experimental attempt to deal with this target group whilst realising that the group was not homogeneous in nature. It attempted to offer an integrated programme of basic vocational and social skills allied with encouragement to make both more creative use of their leisure time and to reassess their career aspirations. It did not promise jobs at the end of the process; rather it was sold as a work preparation scheme. Colleges were informed that the new recruitment as a whole were

> poorly briefed about the jobs they apply for, about the firms they apply to and about how to conduct themselves at interviews . . . (as well as being). . . ill-informed about how industry, commerce and the service sectors of employment are organised and function.
>
> (Guidelines for the Development of Work Preparation Courses in Colleges of Further Education DENI 1978).

The courses lasted 18 weeks and included sampling of job related skills, actual work experience and a social and life skills element. Part-time provision was offered to trainees from Government Training Centres, Enterprise Ulster, Work Preparation Units, Young Help and people participating full-time in work experience on employers' premises. By 1978/79 twenty of the twenty-six Further Education Colleges in the Province were involved with YOP and by 1981/2 this had increased to twenty-five. The impact of the colleges ranged from five colleges where full-time provision amounted to less than 5% of their work to three others where it exceeded 25% of the total work. Full-time staffing for YOP in the colleges rose from fifty-four in 1978/79 to one hundred and thirteen in 1981/2 and the numbers of full-time staff who had other commitments but at least had some input to YOP rose from one hundred and thirty-eight to three hundred and fifteen in the corresponding period. The most prevalent full-time courses were in Commerce/

Clerical and Engineering, being offered in thirteen and ten colleges respectively.

This then was the backcloth against which the idea of the new Youth Training Programme developed. In the introduction to the joint Department of Manpower Services/ DENI document 'A comprehensive Youth Training Programme for 16/17 year olds in Northern Ireland' the Secretary of State, James Prior, noted that YTP had foundations to build on which included YOP but stated:

> In recent years it has become increasingly clear that the vocational education and training needs of young people must be provided for in a more comprehensive and systematic fashion than has so far been the case . . . existing training schemes must be brought together within a more structured framework and additional education and training programmes must be developed. 2

The position of Further Education as part of a three pronged approach alongside work experience and skills training was unequivocally stated by the policy planners in the joint Department of Economic Development/DENI Plan for 1983-84.

> Further Education is an essential element of the full-time training and employee training schemes in YTP. 3

Having been guaranteed a role, however, issues soon arose concerning content. Would the courses be seen as simply more of YOP or were they to be radically different? Would they reflect the industrial infrastructure of the locality? Would the provision for day release trainees from Government Training Centres, Work Preparation Units and those on Employer Based Schemes vary dramatically from that offered to full-time trainees? These are some of

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the questions relating to course design and content of F. E. courses that our research should throw some light on when the results are known.

Breadth in the curriculum is one of the cornerstones of the YTP ethos. The seminal paper published under the joint auspices of DMS/DENI and referred to earlier states:

> Further Education Colleges will be encouraged to develop work preparation courses presently within YOP which could be lengthened and become more broadly based in content. 4

In the colleges where we are carrying out research, this has happened - courses are longer and there is more breadth. The planners were helped in assessing the optimum length of the courses by the results of the survey undertaken by McCammon, O'Hare and McIlheney in 1981/82 at the behest of DENI.[5] Some 50% of the sample of 650 YOP trainees stated the course they were on was too short. The idea of a guaranteed year seemed to be meeting the demand of the consumer. More importantly the evidence of trainees' ability to have coherent opinions on varying aspects of their courses reinforced the principle of negotiation which was being built-in to the YTP model.

The breadth in the curriculum is within clearly defined parameters, which can be classified as occupational families. For instance a person can join a work preparation course in catering. Here they will do a number of tasks, all of which are relevant to the catering industry - they will not do a smattering of engineering or construction. The colleges have thus opted for a broad-based approach within one discipline where the skills sampled are interrelated and integrated into a meaningful and cohesive course of vocational preparation. The trainees can thus do a diversity of tasks and then opt to hone their skills to a higher level of refinement by concentrating on some particular expertise.

To highlight the nature of the courses offered to full time YTP trainees at colleges in Northern Ireland I would like to outline the provision offered in a college which is situated in what was previously regarded as one of the 'boom-towns' but which has now fallen on hard times with employment opportunities decimated by the demise of the man-made fibres industry. The out-of-work total in this area rose for school eavers by 40% and for the total under 20 age group by 44% in the 4 year period 1978-82. Whereas YOP was viewed as short term, lacking a central focus and peripheral to normal F.E. work, the college sees YTP as important to its operation, and as centrally directed and at least the structure is here to stay even if the component parts all undergo surgery in the years ahead. This change of perception is a direct result both of the high level of funding and resources being allocated specifically to YTP at a time of retrenchment in other spheres of education and to the degree of involvement by government departments in the design, planning and implementation stages of the provision.

Just as Bright described the extension of the franchise in the nineteenth century as "a leap in the dark" so the college has opened its doors to a new clientele, not fully asare of what the repercussions would be but knowing that a new response was going to be required. The DENI pointed the way in their Good Practice in Education Paper No. 1 in the section appropriately entitled A New Provision:

> These young people have opted for work but failed in their search often through no fault of their own. In many cases this places an onus on course planners and tutors to convince young people that further education and training is relevant to their needs and in their interests and not just a means of occupying their time. 6

This college offers three basic full-time courses in Business Studies and Clerical; Catering and Caring; and Construction and Engineering. They are typical of F.E. provision in the province. In the introductory handout to prospective applicants they are described as consisting of:

> Common core modules of study in Communication and Numeracy, broad-based practical training in vocational and life skills, and a period of 3 months' work experience in industry. All courses include Recreation and Leisure pursuits, Careers Advice and Counselling, Profiling and Assessment.

The Business Studies course is a good indicator of how existing material has been useful in formulating the new provision. It is modelled almost exclusively on the Business Education Council General Certificate for its core and optional modules. However, the trainees do not sit any exam and the content is 'watered down' to suit their perceived ability level. Thus BEC is used as the vehicle for instruction but each module is 'pitched' by the individual teacher at a level appropriate to the group. It should be noted that YTP full-time courses in this college differ from their other full-time work in that no qualifications are required for entry.

The core modules of the course are People and Communication, Business Calculations and the World of

Work (all from BEC) plus careers advice and counselling and sport. Options range from local community studies to retail distribution and office machines and equipment, including computers. The life skills element of the course relies heavily on the guidelines contained in the 1979 Further Education Unit publication 'A Basis for Choice'. This includes coping skills, adapting to the new technology and the methodical tackling of problems but at the very heart of it lie these key aims:[7]

1 To bring about an informed perspective as to the role and status of a young person in an adult society and the world of work.
2 To provide a basis from which a young person can make an informed and realistic decision with respect to his or her immediate future.
3 To bring about continuing development of physical and manipulative skills on both vocational and leisure contexts, and an appreciation of those skills in others.
4 To bring about an ability to develop satisfactory personal relationships with others.
5 To provide a basis on which the young person acquires a set of moral values applicable to issues in contemporary society.

This course, by using the highly flexible BEC curriculum, is illustrative of something fundamental to the YTP blueprint - the notion of transferability of skills across sectors in the job market.

The Catering and Caring course has a common core of modules which includes careers advice and numeracy, a vocational studies section which includes such broad topics as basic science and technology and a job specific studies element which entails learning the skills, practices and attributes of a particular job - a chef or waiter. There is also important instruction on safety procedures, health and hygiene. The course literature stresses the point I made earlier about the legacy of YOP by stating that the course was based partially on a YOP course that had been running in the college.

The course for preparation in the craft trades in construction and eingineering is of a similiar structure with the main difference arising in the job specific studies area where electrical installation, garage practice and plumbing are amongst the range of subjects taught. Alongside careers advice and sport as core modules are numeracy, communication and environmental studies. The vocational studies section includes the historical background of construction and engineering, basic science and geometrical drawing.

For all these full-time courses work experience is provided on a block release basis and the courses also involve an induction phase which includes the opportunity for the staff to discover the strengths and weaknesses of the new intake via college-based aptitude tests. The work experience element has been welcomed by the college as an opportunity to extend their contacts with the local business community. An encouraging factor is the evidence that the majority of trainees from this college who made the successful transfer to paid employment last year did so as a result of the favourable impression they made during their time on work experience.

With such a major innovation some turmoil could be expected. One difficulty is for colleges to know whether their approach and content is in step with the norms elswwhere. Whilst McCammon, O'Hare and McIlheney in their 1983 report 'YOP courses in Colleges of Further Education in Northern Ireland' had observed how many colleges had introduced innovatory teaching methods and materials to deal with the new clientele they also noted there had developed

> A diverse growth of initiatives across the province which have little formal co-ordination and do not have a coherent framework of structures and curricula. 8

It was to rectify this situation that the YTP for 1983/84 hinted at the possibility of the development of a unified curriculum (page 8, para 3.31) and noted the extensive, expertise spanning a variety of subject groups, which was involved in investigating alternative curriculum design packages. Planning was of course regarded as crucial if the provision were to avoid the 'ad hoc' label which had been attached to YOP and here a key factor is time. Staff, when not involved in teaching or profiling, are supposed to be involved in monitoring the course and suggesting possible improvements. Some staff undoubtedly had reservations about the new provision in its infancy. These ranged from those who saw the college as moving irreversibly 'down-market', to a questioning of whether the college resources could cope. There were also some who painted an apocalyptic scenario reminiscent of Stanley Kubrick's 'Clockwork Orange', with disenchanted and aggressive young people roaming the corridors of the college. There was too, of course, a nucleus of staff committed to the philosophy of YTP. Fortunately the prophets of doom have been incorrect and there have been only a small number of terminations of trainees' contracts due to breaches of discipline.

Who is attending these full-time courses? Reverting to the case study again - it shows a 60 : 40 male to female ratio, very much in line with the figures for the entire province. The girls are concentrated in the business studies/clerical and catering/caring courses. Of the sample 90% are from the secondary school sector but the group is a mixed one on the basis of religion, academic ability, and social class, although few have any formal exam qualifications.

The choice of courses open to them is moulded by a variety of factors. Firstly, it reflects the current staff expertise that is available. Secondly, it shows an inheritance from what went before, namely YOP. Thirdly, it shows a desire as far as possible not to duplicate what is on offer from other providers and finally the curriculum is constructed with due regard to the employment potential of the locality.

This final section will deal with one of the most controversial aspects of the Youth Training Programme, where many of the problems are unresolved. This is the provision by F.E. colleges of courses on a day release basis for trainees attending from other schemes. The main obstacle appears to be that many of the trainees do not want to leave the environment they are in for four days a week to go to the college to study subjects which do not seem relevant to the goals and content of their own scheme. On occasions they are at best viewed by the college as a further strain on resources and at worst a disruptive influence on the day-to-day operations of the college. The Guidelines on the Education Content for young people attending Government Training Centres pinpointed the dilemmas facing the part-time provision:

> Experience has shown that some of them have a negative attitude towards education, their literacy and numeracy skills are generally below average, academic work is unpopular

> and attempts by their instructors to introduce the use of the lecture room on related job knowledge have met with indifference and resentment.[9]

Supporting evidence from the Work Preparation Units comes in the McCammon, O'Hare and McIlheney report cited earlier:

> Many of the trainees in the Work Preparation Units have been low achievers at school and because of this early experience, have a negative attitude towards education. Activities which resemble traditional schooling are thus viewed with suspicion.[10]

Some of the main questions are already emerging in the course of our research. Where is the best place to fulfil the required education component? Must it be in the college or could staff be more mobile and go to the different centres? What should the content be? Should it be a theoretical back-up to the practical skills the trainees are engaged in the rest of the week? Could it be an introduction to a new skill which the government training centre or workshop cannot provide for whatever reason? Or should it have as its central focus the aim of developing the individual as a responsible adult via a social and life skills orientation? The problem here is of course that there are as many definitions of what constitutes social and life skills as there are colleges of Further Education in Northern Ireland. In short, if people on courses must have day release for education what is the aim of it? Again hopefully our work will highlight these issues.

Provision across the province is chequered and again a case study, this time from a work preparation unit, in a rural area of the province will illustrate the points. All trainees attend the local technical college where four staff are involved in offering a range of subjects including electronics, hairdressing and computers. A streaming approach is used now with trainees of comparable ability levels going on the same day. This shows how feedback from the trainees and staff can be vital in that previously trainees with 'O' levels were mised with E.S.N. trainees and it was not a success. Two of the four staff concentrate on remedial work. The trainees from the workshop are not mixed with other students, be they YTP or full-time, and they do not do any exams. All trainees are offered a similar syllabus but again it is taught differently, depending on their ability lwvel. Negotiation also figures in the plan because the trainees can select from within the advertised modules. A record of what happens at the college is kept in the trainees' log book.

To summarise then, with regard to full-time courses some consensus is emerging. This can be viewed as the apex model. It is geared in the first instance towards choice, variety and adaptability for the raw recruit. The second stage involves the utilisation of knowledge gained to advance from the base camp towards the summit - where the individual has been trained for the world of work. From the colleges' point of view one of the more encouraging features of the provision is the way they have, by and large, avoided the pitfall of opting for the "jack of all trades" approach which they perceive as being anaethma to most employers. The "never mind the quality look at the breadth" school of thought has very limited support. The great dilemma is that whilst the colleges can inculcate the young climbers with the skills, correct attitudes and hopefully a personal survival kit for later life there can be no guarantee they will surmount

Everest itself - the huge unemployment problem facing the country. Colleges have emphasised in their literature that the courses are not necessarily an avenue into a job but the dichotomy remains between this sobering reality of the scheme philosophy and the rising expectations of the participants.

Further Education colleges have had to absorb many new pressures and respond to many new demands. Staff development programmes are obviously vital to the long term success of YTP and this is now being tackled. It would be wrong to see YTP as a completely new broom. Rather, the best elements from YOP have been retained and new ideas grafted on. It is a dynamic process which gives the colleges a unique opportunity to shape the training and personal development of school leavers through the 1980s and beyond.

REFERENCES

1 Education Provision for Unemployed Young People (Circular 1978/80 DENI para 3).

2 A Comprehensive Youth Training Programme for 16/17 year olds in Northern Ireland (Department of Manpower Services/DENI 1982 para 1-3).

3 The Youth Training Programme Plan for 1983-84 (Department of Economic Development/DENI page 8, para 3.31).

4 A Comprehensive Youth Training Programme for 16/17 year olds in Northern Ireland (op. cit. para 20).

5 YOP Courses in Colleges of Further Education in Northern Ireland 1978-82 (Further Education Staff Unit 1983).

6 Good Practice in Education Paper No. 1 (DENI, 1983, p. 2, para 2.1).

7 re: A Basis for Choice (Further Education Curriculum Review and Development Unit second edition 1982, pp. 30-34).

8 Further Education Staff Unit 1983, op. cit. p. 26, para 35.

9 Guidelines on the Education Content of Young Person's Training Courses in Government Training Centres (DENI 1979, para 4).

10 Further Education Staff Unit 1983, op. cit., p. 79, para 127.

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THE FUTURE OF ADULT EDUCATION IN IRELAND

Liam Carey

THE EXPANDING CONCEPT OF ADULT EDUCATION

If we are to examine the future of Adult Education in Ireland it is fundamental to define what Adult Education is, and by implication what is not. It is now accepted in many countries that the concept of Adult Education includes all planned, systematic, guided and assessed learning experiences and activities which facilitate the development or change of knowledge, abilities, skills, attitudes and values in individual adults, groups, families, community and society. There is a rapidly changing emphasis on methodology from that of giving instruction to that of facilitating learning or planned change or reinforcement. The formal class-based form of Adult Education, which until recently was considered as the chief process of Adult Education is receding and is being replaced by such processes as self-directed learning, peer group learning, distance education, computer-aided learning, group and community development, social-economic and cultural projects, Freirian praxis comprising of the two-fold elements of reflection and action,[1] meditation, street and ethnic theatre, creative drama, animation rurale and finally voluntary and statutory support study groups and circles. There is a rapid growth of non-formal adult education in Ireland.

This comprehensive overview of Adult Education, supported by such a variety of methods, processes and techniques is arising from a dissatisfaction with and the inadequacy of what is now provided by the formally-structured Adult Education provision and by the gradual acceptance and implementation of the philosophy of permanent education.

PERMANENT EDUCATION

It is significant that Mrs. Hussey, the Minister of Education, in her published Programme for Action accepts this philosophy or principle of permanent education as the basis for the development and implementation of her Programme. The Minister clearly states in the preamble:

> The education system should seek to make permanent and continuing education available for all citizens and to equalise opportunities for educational advancement between the various socio-economic groups in society and between the sexes. [2]

Fundamental tenets of permanent education are:

(i) education is a livelong integrated process;

(ii) adult education is a vital and integral part of a flexible educational system;

(iii) the learner is an active agent or participant in the planning, implementation and evaluation of his/her learning experiences;

(iv) lifelong education is universal and provides equality of access to education for all at any stage of life. The aim is to lead to 'full democratisation';

(v) permanent education fosters vocational development integrated with personal development and creativity;

(vi) there is less emphasis on certification. Personal, group achievement or development are stressed.[3]

TRANSFORMING SOCIETAL TRENDS

The future direction of Adult Education in this country will be conditioned by and/or related to some major national and international trends or directions. Time does not permit me to examine each of these trends in detail. I will simply list them. The major social and technological factors or trends[4] which will influence the future orientation and processes of Adult Education are:

- an ever-increasing absolesence of knowledge, skills and abilities;
- the advent of a puralist society in Ireland; traditional values are being challenged;
- the recognition that education is no longer neutral; it is a socio-economic political activity;
- the increase of leisure hours, the existence of work-leisure pattern of life for all; leisure is now a necessity, a value and a significant cultural activity for all people;
- the shift from the industrial to the information society;
- the human questioning reaction to the growth of technology;
- economic interdependence at all levels of human existence;
- recognition of the rights and needs of the minority groups in our community;
- the emergence of the influence of the Third World countries;
- the move from agency/institutional centralisation to de-centralisation;
- the move from institutional and external help to self-help and self-reliance;
- the shift from a managerial and structured society to an entrepreneurial and less structured society;
- 'the trend from representative democracy to participatory democracy';

- 'the growth of the networking process: networks exist to foster self-help, to exchange information, to improve productivity and work life and to share resources. They are a horizontal link, they herald the diminution of the influence and power of bureaucracies';
- the increase of options. People want more choices; this demand will increase;
- the signs of the times - challenge, craativity, risk, illogicality, experimentation and flexibility.

All these factors will affect policies - curriculum development, the role of providing agencies, the functions of the teacher, and learning processes and techniques, resources related to Adult Education.

THE CENTRALITY OF THE ADULT LEARNER

The acceptance and implementation of the principles of permanent education means the recognition that the learner(s) is the central actor in any Adult Education provision. The learner is an active participant in the planning, the implementation and the evaluation of his/her learning activities. The learner is both educator and learner. The learner determines the most effective process/method/technique for his or her learning and decides also when and where the learning activity will take place.

So in the future the learner will demand a greater authentic involvement (not a token involvement) in those decisions which concern Adult or Community or Continuing Education. Any system which fails to afford the adult learner the opportunity to do this will be rejected and become obsolete and outmoded. Adult learner-management of the learning activities will help to determine the future form of the Adult Education provision in this country. It will lead to many innovations in existing agencies of Adult Education. These agencies will have to create new ways for involving the learners in the development of their programmes and learning activities.

Policy-makers, administrators, organisers and teachers and facilitators of adult learning (in any shape or form) will be required to have a greater understanding of who and what is the adult learner in a rapidly changing Ireland. We urgently need research studies in such areas as the Psychology of Adult Learning, the Sociology of Adult Education and a comprehensive analysis of the many new and innovative learner-centred and guided activities now emerging in Ireland.

SELF DIRECTED LEARNING

Self-directed individual learning activities will in the future, be a major part of the Adult Education system in this country. This independent learning has been described by Brookfield 1980/81 as:

> that which takes place when the decisions about the intermediate and terminal learning goals to be pursued, the rate of student progress, evaluative procedures to be employed, the sources of material to be consulted are in the hands of the learner and are independent of external instructional direction and institutional accreditation or supervision. 5

Other terms used as self-teaching, and planned autonomous learning. Help may or may not be sought from Adult Education agencies, organisers, teachers, community development workers, researchers and the various other categories of adult educators.

Allen Tough was one of the first Adult Educators to examine self-directed learning in the early 70s. He has analysed all research in this connection and he states that:

> Almost everyone undertakes one or two learning projects a year.
>
> The median of learning projects conducted a year is eight.
>
> It is common for an adult to spend seven hundred hours a year at learning projects.
>
> 70% of learning projects are self-planned.[6]

He forecasts that in 20 or 30 years the comprehensive study of learning projects will be a well-defined field of research and theory.

STUDY GROUPS AND COMMUNITY ACTION

It is significant that the rate or level of participation in Adult Education formal classes is either stationary or showing a small increase. Recent figures reveal that in England 17% of the adult population participate in formal classes, about 13% in the U.S.A. and in Ireland about 11 - 12% of adults between the ages 16 - 68 years. In Sweden however 33½% and in Norway 40% of adults participate in Adult Education in small study groups or circles. Most of these are organised either by local communities, voluntary agencies and subsidised by local, regional and national departments of education or culture. These study circles are seen as an integral part of the national educational system. This exemplifies one of the tenets of permanent education, viz., that Adult Education is not marginal to the educational system. It is an integral part of the total education provision and service. How it functions may vary.

Many local groups come together to solve, through planned systematic activities, identified social, cultural, religious and economics problems of the local community or neighbourhood. This community action type learning exists in Ireland and will continue to flourish. It is non-traditional in its approach but effective Adult Education.

THE DISADVANTAGED ADULTS

The Programme for Action outlined by the Minister of Education highlights the need to service the learning needs of the disadvantaged in our community. The future in Adult Education will be characterised by an expansion of community based learning innovations involving disadvantaged adults. The Council of Europe has identified the following as among the disadvantaged:

(a) The Unemployed
(b) Women
(c) Migrant Workers (Travelling People)

I would add to this list the following:

(a) The Physically and Mentally Handicapped
(b) The Elderly (and here I am reminded of the French initiated project for the elderly adult learner entitled "The University of the Third Age" and now being promoted by such people as Eric Midwinter in England)
(c) The mature student (access to Higher Education opportunities).

BARRIERS

Informational, institutional, situational and psychological barriers[7] which hinder these groups from participating in adult learning activities will be removed or bypassed by learner centred community based projects, the provision of an educational guidance service for adults, the recognition and acceptance of the learning value of life experiences, the location of

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learning projects in situations acceptable to and approachable by the target learners.

Adult Basic Education (including such elements as literacy, numeracy, coping and survival skills) is an urgent need and will be of major concern for providers and many learners in the future. But institutional and programme flexibility will be vital if adult basic education is to prove relevant and attractive to its target groups.

TRAINED ADULT EDUCATORS

Much of our Adult Education service in this country is provided by a relatively few full-time organisers, a great number of part-time paid workers and a host of volunteers.

The future in Adult Education postulates an increase in the number of full-trained adult educators - policy-makers, administrators, researchers, teachers. The part-time paid tutors and volunteers will require, even demand training. Here I welcome the Minister's decision to provide resources for inservice training. But the role of the adult educator will change as new methodologies and processes emerge. The adult educator of the future will be required to be a 'resource linker', a facilitator of group learning, a guide and a counsellor, capable of responding to the educational needs of individuals, families, groups and communities. As an expert within a certain field or discipline he or she will be a resource person, available to the learners.

CONTINUING PROFESSIONAL EDUCATION OR RECURRENT EDUCATION

The Adult Education service of the future will see an expansion of continuing education for professional groups, such as teachers, doctors, workers, employers.

The implementation of a system of Paid Educational Leave in Ireland (already being operated in France, Belgium, Italy, parts of Germany[8] in accordance with the ILO Convention on Paid Educational Leave will reinforce this expansion.

The increase of leisure hours, and of day-time Adult Education provision, the launching of a local radio service, the demand by adults for access to institutes of higher education, are significant trends which will add to this multi-coloured Adult Education coat of the future.

RESOURCES

The future expansion and development of Adult Education in Ireland depend on the availability of adequate financial resources. But the future depends not only on the input of these extra financial resources, the future will also require a planned and systematic evaluation of the allocation and use of existing financial resources, and of other community resources, such as, schools, institutes, community centres, churches and people - the members of the community - themselves. It is so easy to demand more financial support for Adult Education. If we really believe that Adult Education can play a vital part in the development of people and contribute to the solution of some of our socio-economic and cultural problems, i.e. in a philosophy of self-reliance - then the future Adult Education is very much linked with the readiness and willingness of members of the community to harness all resources available to them and to use them to the optimum to meet and satisfy the learning needs of the community. It means also that priorities in Adult Education must be established, the cost benefit of these priorities evaluated and related to existence and availability of personal, physical and financial resources.

The future offers many challenges to innovative adult educators who are prepared to take risks, work through failures and proceed in what could be called a non-traditional manner. It requires flexible policy-makers who are prepared to tolerate decentralisation and to respond to a variety of outcomes, new approaches and needs in the expanding and complex field of Adult and Community Education.

REFERENCES

1 Paulo Freire, Pedagogy of the Oppressed, (Penguin, London, 1982), pp. 60-66; Cultural Action for Freedom, (Penguin, London, 1972); Education for Critical Awareness, (London : Sheed Ward, 1973) pp. 41-58.
Malcolm Tight, Adult Learning and Education (London : Croom Helm, 1983).pp. 279-292.

2 Department of Education, Programme for Action in Education (Dept. of Education, Dublin, 1984), p. 1.

3 Council of Europe, Permanent Education : Fundamentals for an integrated educational policy, (Council of Europe, Strasburg, 1978).

4 John Naisbitt, Megatrends, (Warner Books, New York, 1982).

5 Stephen Brookfield, Independent Adult Learning, (Dept. of Adult Education, Nottingham University, 1982), pp. 5-9.

6 Allen Tough, The Adult Learning Projects - A Fresh Approach to Adult Learning, (Institute for Studies in Education, Toronto, 2nd edition, 1979).

7 The Report of the National Advisory Panel on Skill Development. Learning for Life (Ministry of Employment and Immigration, Ottawa, Canada, 1984), pp. 8-9.

8 Commission of the European Communities, Educational Leave in Member States, (Social Policy Series, No. 26, E.E.C., Brussels, Belgium, 1975), pp. 5-48.

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TELEVISION IN NORTHERN IRELAND SECONDARY SCHOOLS : RESEARCH FINDINGS AND IMPLICATIONS

C. W. J. Crouch
J. J. Collins

ABSTRACT

The authors provide an interim report on current research into television usage in the Northern Ireland secondary sector, including provision, subject and departmental usage and school and teacher reactions to such use. Underlying attitudes are suggested and implications drawn that promote the teaching of television in the secondary level curriculum.

INTRODUCTION

> We live squarely in the domain of a *media culture*, a culture constructed and altered continuously through the linguistic and interpretative strategies of media.
>
> (Snow, 1983)

The particular medium culture of television is shared by both the North and the South of Ireland. At the flick of a switch BBC, RTE and IBA transmissions enter Irish homes. The common culture is not based exclusively on commonality of programmes, nor is it merely a matter of all media being American as Jeremy Tunstall asserts (Tunstall, 1981). Rather it is one involving information processing through codes that are to an extent inherent in the medium or rather those codes imposed by television workers. In that sense of course the medium is shared by Great Britain, Europe, the Western World and indeed most of the world as a whole. Not so long ago it seemed feasible to talk of television as a window or mirror standing "*apart from* social reality.

passively reflecting and giving back to the world its self-image" but it is in fact "a part of social reality, contributing to its contours and to the logic and direction of its development via the socially articulated way in which they shape our perceptions" (Bennet, 1981). How significant that contribution is varies from person to person and from time to time but Littlejohn (1975) may be correct in saying that for some if not many ". . . reality is too impossibly complex to deal with . . . television we can bear". Such characters as Chance in Being There (Kosinski, 1971) who consult the screen in order to see if reality is correct may be less fictional than at first supposed. At the very least it is clear that television affects people's knowledge, skills, values, attitudes, beliefs and habits. One's experience of, say, Iran, Argentina, Iranians and Argentinians, even Northern Ireland and the Northern Irish, is quite literally mediated by those 625 lines.

The continuing if not increasing pervasiveness of television is assured. Cable and DBS (direct broadcast satellites) are no longer future technologies. Cable is being fed under soil and DBS are nearing the launching pads to join others encircling the globe. Reception capability as a major concept has been obliterated by that of choice - choice of channel. The medium is exceedingly robust, given financial support. Television's ability to permeate and influence is a matter of deep concern for many - individuals, factions and indeed nations. Barely a day passes without the voice of protest over some aspect, be it programmes, personalities, policies or access. People such as Mrs. Whitehouse become household names, ironically sucked into the medium itself. With or without proven evidence the medium is accused of ruining social mores and customs, of subverting standards causing violent and other anti-social behaviour. Large (1980), for example, contends that the family unit is under siege and that child development is perverted yet he, in common with most others, directs attention to all but the educational dimension. Indeed, apart from the odd shy at such programmes as Sesame Street, the genre is untouched. Even then it is educational principles rather than the principle of education that provide focus. Large himself ends with the plea that teachers and educationists at least ensure that children are taught to be more discriminating in viewing habits.

Compared with that between television and its wider audiences the relationship between the medium and education has always been easier, far more harmonious and mutual. By and large television has been prepared to play the role of handmaiden. It should be remembered that Sesame Street was sponsored from without the education system. Collaboration between television and education is evinced in its most dramatic form by the Open University but it is but one example of many. Both the BBC and IBA - until 1981 RTE as well - transmit several in term schoolday hours of programmes designed for schools and colleges.

Northern Ireland as Television Context

Northern Ireland is a particular context of and for television. Its contemporary but not future range of channel reception is unusual for the off-continent island though not of course for Europe, e.g. the Netherlands. Six or more channels can be viewed in most areas of Northern Ireland and Belfast is a cable designated area. Although it does not follow logically it is the case that Northern Irelanders watch television in great amounts. Social, cultural economic, not to say, political factors combine at times to drive the population indoors to consult Lord Reith's Holy Trinity of information, entertainment and education. It is often safer to see what is going on in the road beyond the front door than actually walk along it. The "troubles" have meant the considerable attraction of camera teams from all over the world to Northern Ireland shores and it is certainly true that the population has had greater opportunity to see the self-image or versions of it than probably any other in the world today. Security arrangements, economic decline and sheer trepidation have made entertainment seeking more locally based, more television orientated. As far as education is concerned it is the case that, proportionately, the number of enrolled Open University students in Northern Ireland is the highest for all fourteen OU regions. School and college usage of educational broadcasting is extensive.

THE RESEARCH

The authors have begun an immense journey. It is intended to survey the Northern Ireland education system as a whole in terms of television and associated technologies' usage. Initially focus is upon the secondary sector, one in which the age range is reputed to show increasing then declining viewing habits. It is also the sector in which most variables occur. There are urban and rural schools; large and small ones; single and both sex ones; State Voluntary and private schools; the persistence of the eleven plus selection system means that there are grammar and secondary high schools; in addition, there are secondary streams embedded in technical and further education colleges, and a small outbreak of comprehensives. In all there are 240 establishments and all were circulated a questionnaire in October 1983. Just short of 170 returns were received, i.e. a 70% sample. While the following results are primarily based on the questionnaire strategy others were involved in arriving at the results.

Equipment Provision

Apart from one, all schools and colleges reported ownership of at least one television set. Two have seven, not including ones used for computer studies. On average each school has 2.2 sets, together with video cassette recorder (VCR) and, one per four, video camera. Provision differences between types of school are non significant, though grammar and private ones tend to be better equipped. It is from those types of school, however, that such comments as "we do not use television very much" or "boarders are allowed to watch in the evenings" emanate. Disdain was rare and the overall picture was of equipment being used more and more, especially since the advent of VCR. It can be safely said that television and its technologies are no longer luxury items; rather, they are standard. Compared to provision in the Republic, Northern Ireland schools are rich indeed.

Usage

Both the BBC and IBA conduct their own research into usage and with distinct purposes in mind. The authors were more interested in how television is used in schools and by teachers. Subject and/or departmental use was sought, schools being asked to state in order at least five areas which used television most frequently. In all more than fifty different areas were mentioned. Some were unexpected. "It could be taught by television on its own", commented one teacher referring to Child Care. Greek, Latin, Traffic and Safety Education were other singular cases. At times it was difficult to see which programmes applied to the subjects. However, as expected, some areas were mentioned a great deal. Table 1 shows those subjects receiving mention by 25% or more of the sample of schools and colleges. First, second, third and total number of instances are shown as well as percentage within the sample which was reduced by 5% or so by school failure to fill in the appropriate section.

TABLE 1 Distribution of Subject/Departmental Usage

Subject/Department	1st	2nd	3rd	Total	%
English	34	34	27	126	81.3
Sciences	27	27	24	112	74.6
Geography	24	28	23	105	70.6
History	20	19	26	97	65.9
Careers	6	15	11	64	41.8
Languages	9	8	12	69	33.5

These figures warrant some comment, however brief.

That English tops the table is hardly surprising. It is an area of the curriculum that is compulsory, considered important enough to attract several lessons per week for all ages. The high percentage is, however, disproportionate in terms of BBC and IBA provision. From comments it was clear that English teachers are far from averse to using non educational televised material. "We tend to use professional productions of Shakespeare etc., rather than other fare", was not untypical, and such is the width of the English curriculum that it is equally clear that non-English but educational broadcasts are used.

Science programmes, General, Biology, Chemistry and

Physics - are universally acclaimed. "Pupils can see experiments that the school cannot put on"; "we cannot afford the equipment let alone allow it to lie unused for long periods"; "Pupils can see applications to industry, for example"; "Superior graphics have helped considerably" - these were typical of responses. For the Science teacher, already faced with the difficulties of relating his or her subject to pupils in a meaningful way, television has been highly beneficial.

Of Geography and History programmes it is evident that what is made available via television is eagerly digested. Both areas attracted praise in the largest amounts. "Pupils can see places that they would not otherwise see"; "Land formations are excellently reproduced on TV"; "Animation techniques are very useful"; "Where events took place are shown"; "Dramatic reconstructions are excellent means by which learning can take place"; "A variety of perspectives are offered on complex issues so that pupils understand" - these were not unusual. Some evidence of non educational broadcast material was present.

Careers is of course a relatively new curriculum area and it is much to the credit of television companies that they have responded so positively. At the same time provision for the secondary level is by no means as great as that for the Further Educator sector. Schools have 'trespassed' usefully.

A notable absentee from the table is Mathematics. Considering both its curricular priority and television provision of Mathematics programmes the discrepancy concerned the authors. It seems that teachers on the whole are not keen on using the medium to teach the subject, arguing that television "trivialises" the subject and that programmes are "far too entertainment orientated to be useful". The authors suspect that in addition, in a climate in which numeracy is seen as lacking generally, recourse to older methods such as rote learning has been effected.

Teacher Attitudes to Television

Another feature related to criticism of Mathematics that emerged was the converse, in more general terms. There was not only a virtual absence in questionnaire replies of any criticism, there was a preponderance of unsolicited praise. The word "excellent" appeared very often. It was most noticeably present in replies about perceived benefits to the school of using television. In the authors' view further analysis was worthwhile, on the grounds that school and teacher attitudes were revealed rather than hidden. In order to attempt greater objectivity the authors decided to re-analyse the data separately, using methods that each thought viable. One method is described, though, be it said, its conclusions were echoed by the other.

Teacher Attitudes : Method

It was decided that teacher statements evinced comments that were assignable to one or the other of two dimensions, i.e. medium intrinsic or medium extrinsic. These dimensions were defined as follows:

A pertaining to qualities and characteristics of the medium that persist regardless of context and purpose (Medium Intrinsic);

B pertaining to qualities and characteristics of the medium with regard to context and purpose that are specific (Medium Extrinsic).

In all 325 statements, i.e. 98% of all statements, proved assignable. Of the remaining 2% these were typical - "benefits are too numerous to mention"; "benefits are obvious". Examples of assignment to dimension were:

"TV is a useful teaching aid"	Medium Extrinsic
"Up to date information"	Medium Intrinsic
"It has great visual impact"	Medium Intrinsic
"Slow learners benefit"	Medium Extrinsic

Almost by definition and certainly empirically Medium Extrinsic statements included reference to relationship between two elements in a dyad, i.e. the medium and either persons or the functions of persons. Thus, for example, statements included television and teachers/pupils or teaching/learning. Further, the relationship was epitomised by primacy. For example, "TV is a useful teaching aid" implies teacher primacy over the medium. Thus, four categories within the Medium Extrinsic dimension were perceptible, i.e. Medium primacy over Teacher (M/T); Medium primacy over Pupil (M/P); Teacher primacy over Medium (T/M); Pupil primacy over Medium (P/M).

Teacher Attitudes : Results

Of the 325 statements 117 were assigned to the medium intrinsic dimension, 208 to the medium extrinsic one. Percentage and actual distribution of medium extrinsic statements among categories is shown in Table 2.

TABLE 2 Category distribution of Medium Extrinsic statements

N = 208

Category	No.	%
M/T	61	29.3
M/P	79	37.8
T/M	63	30.3
P/M	5	2.4

Teacher Attitudes : Discussion

Given the premise that teacher attitudes are revealed, the following two conclusions may be offered:

(i) since M/T and T/M statements are virtually identical in number teachers see themselves in an equalised relationship with television;

(ii) since M/P statements outweigh P/M ones to a large degree teachers see pupils as in an unequalised relationship with television.

The authors were inclined to interpret the latter conclusion as evidence of pupils being regarded by teachers as "television vulnerable". Such an alarmist ring was supported by evidence from elsewhere. In another section of the questionnaire teachers were asked to say whether or not aspects of television should be taught in school. Table 3 shows the results.

In the authors' view the high percentage in favour of teaching televiewing skills was further evidence of teacher concern about pupil "television vulnerability".

TABLE 3 Teaching aspects of television

(a)	Do you think pupils should be taught about how TV companies are organised?	Yes = 63%
(b)	Do you think pupils should be taught how TV programmes are made?	Yes = 67%
(c)	Do you think pupils should be taught about televiewing skills?	Yes = 90%

IMPLICATIONS

Mention has already been made to the general, if lay, concern over television's influence on the young. Teachers are in agreement and show a desire to teach pupils accordingly. Some are indeed managing to teach something. Replies indicated that some schools include teaching aspects of television, though it must be said that only one school timetabled Media Studies. Where television is being taught it is within Social or General Studies and, in the majority of cases, within English, where communication is central.

Current approaches to the study of television include such discipline perspectives as sociology, psychology, cultural studies and semiotics. It is essentially an interdisciplinary inquiry conducted in the main at post-graduate level. While it is dangerous to generalise it may be said that English is not always the best training background for teaching television. The medium is 'low culture', non-book and aesthetically uneven. The likelihood of "innoculation against" rather than "analysis" is prevalent where a discipline is threatened. What was noticeable in English teacher comments was some acceptance of television as "a means of getting over plot and background" and "substitute for theatre".

Opportunities to train or re-train in order to teach television are currently severely limited. Contractions of all kinds - the number of schools, teachers, financial support, curriculum - all paint an unpromising picture. It seems highly unlikely that innovations with regard to television studying will take place in the near future. Yet not only is there evidence of teacher concern and willingness to do something about pupil knowledge and skills, e.g. in addition to the research reported, Popular TV and Schoolchildren (DES, 1983), there is also other research evidence that teaching has effect (see e.g., Lake, 1981; Bryant and Anderson, 1983). Further (Salomon, 1979; Eisner, 1981) it is established that child development affects and is affected by media literacy skills.

The argument that teaching television is unnecessary founders severely on other but similar rocks. Schools, teachers, the education system as a whole would deny that the teaching of, say, reading, is unnecessary, that ability comes naturally. In a less print dominated era 'reading' television is surely vital. That the education system has failed to respond meaningfully is exemplified in Northern Ireland by (a) the absence of any teacher training course related to television - apart from the defunct B.Ed. in Communication Studies (1973-84) at Ulster Polytechnic; (b) the recent NICED guidelines for primary and secondary school curricula in which there is no mention of television at all. Such omissions are difficult to account for. Meanwhile the 'box in the corner' thrives, expands its empire.

REFERENCES

Bennett, T. "Media, 'reality', signification" in *Culture, Society and the Media* (ed. M. Gurevitch, Bennett, T., Curran, J., Woollacott, J. (London : Methuen, 1981).

Bryant, J., Anderson, D. (eds.) *Children's Understanding of Television* (London : Academic, 1983).

DES *Popular TV and Schoolchildren* (London : DES, 1983).

Eisner, E. *Cognition and the Curriculum* (London : Longman, 1981).

Kosinski, J. *Being There* (New Y ork, Bantam, 1971).

Lake, S. (ed.) *Television's Impact on Children and Adolescents* (California : Oryx, 1981).

Large, M. *Who's Bringing Up the Family*? (London : Redwood, 1980).

Littlejohn, D. "Communicating Ideas by Television" in *Television as a Social Force* (ed. D. Cater, R. Adler, (New York : Praeger, 1975).

Salomon, G. *Interaction of Media, Cognition and Learning* (New York : Jossey-Bass, 1979).

Snow, R. *Creating Media Culture* (London : Sage, 1983).

Tunstall, J. *All Media are American* (Columbia : Columbia University Press, 1981).

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THE IMPLICATIONS OF EDUCATIONAL TECHNOLOGY FOR POSTPRIMARY EDUCATION IN IRELAND

Michael Turner

INTRODUCTION

It is widely accepted that the revolution in communications technology, as discussed by Briggs,[1] is well under way and that already the 'Electronic Village' of Marshall MacLuhan has been extended to the 'Wired Mind' described by Valaskakis.[2] Schools by definition and by tradition provide both a forum for inter-personal communication and a potent process through which the ability of people to communicate information is developed, so it is to be expected that advances in the facilities to record, to copy, to project, to process words and data, to store and disseminate information should have profound effects on formal education. As noted by Owens and Devitt, these advances in technology present both a challenge and an opportunity to all who are involved in education.[3]

To appreciate the significance of the challenge and the extent of the opportunity, it is necessary to survey broadly the present state of information technology. It is relevant to concentrate on the technology which is available to the general public, on what is being used in many parts of the world in education, in industry and in government agencies, and on what is now developed to the point of mass production or is already on the market. As suggested by Rhys Gwyn in his address at the 1983 Conference of the Educational Studies of Ireland,[4] there are indications of exciting developments to come through the use of fibre optics, microwaves and laser holograms, but it is not the intent of this paper to engage in any futuristic exercise - the implications for educators of existing technology are sufficiently portentous for this decade at least. It is apposite to note, however, that almost as exciting as the invention of any single apparatus in communications technology is the facility for combining the simultaneous use of two or more media for one operation: a television set with a telephone to reach PRESTEL, the television set as a visual display unit for a computer, an audio-cassette recorder or a video-disk linked to a micro-computer, etc.

An overview of current technology

Through concentrating on the more recent and more spectacular advances in communications technology, one can easily overlook the valuable role of radio in education - whether the source be local, community, national, foreign or commercial. In addition to the general availability of radios, many homes have the means of recording and playing back sound on audio-recorders and some have the facility as well of transmitting speech by telephone, walkie-talkie, radiophone and other apparatus. The audio-cassette recorder can also be used with a domestic computer for television educational programmes: the recorder replaying the sound while the computer presents the visual content on the television screen. Noble, citing the experience with radio in the Open University, reports that: "there is considerable evidence that the self-teaching audio-tutorial is acceptable and effective over a wide range of age-groups, subject-areas, academic levels, and for a range of learning activities from reading-to-learn to practical work".[5]

Many homes in this country have television sets that allow access to educational broadcasting on several channels, and this facility is being extended in Britain, in North America and on the European landmass through cable and satellite television. Some of these additional channels are being used in other countries exclusively for formal educational programmes, although the distinction between formal and informal education is less easy to make on television than on other media. Television also provides entry to teletext (CEEFAX, ORACLE, etc.) with its increasing bank of information. Through the telephone, the student can also reach PRESTEL, HOMELINK, etc., which allows him to command some of the sources of information on his screen and to call for specific material to be displayed. The video-recorder, with cassettes at present capable of storing up to eight hours of recording, is already available in many homes and it enables a student not only to record and replay but, through speed and playback controls, to select and study a particular picture. As Lawler points out: "given access to a colour TV set and an interactive device linked to a national or commercial system, the control of the picture on the screen is to some extent put in the hands of the viewer".[6] The video-disk allows not only greater storage capacity than the video-recorder but also random and very speedy access to any particular frame. Owens and Devitt claim that: "linked to a micro-processor or mini-computer, video-disks offer almost unlimited possibilities for interactive programmed learning".[7] Cheap, miniaturized television cameras can now produce material which is acceptable for educational purposes and, as Owens and Devitt also report, it is economically feasible to transmit television signals over a radius of 30 miles by means of low-power ultra-high-frequency transmitters. With such a range of television equipment, a learner can interact with a school or any other educational agency without moving from his home. Even without a learner's access to equipment for filming or transmission the experience in Britain of the use of television for Open University programmes is very impressive and Ashworth cites similar applications in the U.S.A.: "using these techniques (television and telephone), it is already possible in some U.S. Universities for students to pursue their studies, receive instruction, present course work and take tests, have marks, comment or correction - all without leaving their own room".[8]

The developments, actual or imminent, in computer technology have been spectacular since the 1960s. The low-cost, domestic mini-computer now enables a person to carry out operations that were possible 15 or 20 years ago only with very large, very expensive computers. The home computer will become smaller still in dimension, its standard memory is already 64K, and it is constantly progressing to a more efficient and more sophisticated Central Processing Unit. It is important to realise that operators can apply a variety of computer programmes to the same database. The confident expectations of those engaged in computer research and development are that the home computer will soon have improved input/output devices, voice recognition, a better display capability and a more efficient analytic processing of written symbols. Even if these improvements be deferred for some further time, the implications of computer technology for education cannot be ignored any longer. As Burns and Davisson predict:

> Within the next 10 years, since miniaturization tends to proceed at an exponential rate, computers will become so powerful, so portable, so inexpensive that educational technologists and teachers will be hard pressed between now and then to find ways of exploiting this enormous potential. [9]

While educational strategies like distance-learning through the Open University are predominantly based on radio and television transmissions, Computer Based Learning (e.g. CEDAR) has been with us since the 1960s. Computer Aided Learning (CAL) and Computer Managed Instruction (CMI) are tried and commonplace in industrial training. Computer Based Education (CBE) is no longer a conceptual or technical innovation. As O'Connell reports,[10] CBE has its problems but its widespread use at least on an informal basis by pupils in their homes will emerge no matter what decisions are taken by educational administrators and brokers. Most use has been made up to now of the micro-processor in third-level institutions and in training for industry and armed forces, but the Kent Mathematics Project may be cited as an example of CAL providing a course adapted to the needs of individual pupils at lower levels, and the Herefordshire Microcomputer Managed Mathematics Project is a similar successful use of CMI.

Implications for learning of educational technology

The first implication for learning of the technology reviewed above is that the learner in his or her home can have ready and speedy access to a vast store of knowledge, estimated by Lawler to be equivalent to half a million volumes with access time of one second to any page.[11] Some of this the learner will merely tune in to but, as indicated above, the student now has the facility at home to store and to recall enormous quantities of aural and visual data through his cassettes and the memory of his home computer. In addition, the learner can summon up through his technology a growing volume of educational material from centralised libraries and data-banks. In total, this quantity of information far exceeds what is available at present in postprimary schools.

Furthermore, with the existing domestic technology, the learner can select the material to be learned: in this respect, the disciple no longer requires a master, the pupil a private tutor, or the schoolboy a classroom teacher. The learner can now in effect select his own personal curriculum of education and, as Toffler notes: "no two students will move exactly along the same educational path".[12] This development will, of course, present a major but not an insuperable problem of accreditation for employers and administrators of third-level institutions, but they will in the end be happy to see thousands of educational flowers blooming.

It should be noted that the new power of the learner to select material for learning is quite different from recent programmed learning in which the student proceeds at his own pace through a sequence of material chosen by an author for several learners. It is, of course, even more different from the simultaneous presentation to a class of material judged by a teacher to be suitable for the whole group of learners. Equally, the new facility of the learner to select his own curriculum extends significantly the scope of the learner beyond the confines of an educational programme produced for a mass audience or for general viewing.

The technology now available to the home learner allows him an even more radical facility: through the micro-processor in particular the learner can manipulate, illustrate through graphics, and process information in the most intricate logical sequences and involved calculations that have been hitherto the monopoly of the teacher in school. Even the teacher will welcome the aid of technology in coping with these sequences and calculations.

Moreover, to a learner with a television set, a video-recorder and a home-computer, the technology will present turorial sequences that are adapted to his responses; not only is the information processed and presented for assimilation, but the technology will provide stimuli that will induce comprehension, understanding, judgement, skills, even motivation and affective responses by the learner. The individually suited material will also be presented by the technology in a style best fitted to the learner's interests and needs. The learner's performance can also be monitored, assessed and evaluated through ongoing tests as part of an instant feedback which is invaluable in the learning process and is in addition a continuing record that can be retained of the learner's educational progress and a facility which will reduce the problem of accreditation. The outcome of these developments will be a revolution in education. The pupil in full attendance at a postprimary school at present spends less than ten per cent of his year in a classroom or laboratory, but in future the learner need no longer attend school to learn formally, to be instructed, to perceive, to understand, to think critically, to obtain skills, to gain knowledge, to be educated, to be assessed, to be certificated. Through the existing technology, learning can be individualized, adapted to personal differences in learning-styles, preferences and attitudes. Even where education has become child-centred, it will be superceded by learner-steered education. As Mitchell puts it: "the era of individualized instruction for the masses is at hand. Educational technology has come of age".[13]

The implications for postprimary teachers

Teachers are already aware that the informal education which their pupils acquire outside the classroom through the media, contact with peers, family influence and general social intercourse may be more potent and more relevant than the pupils' educational experience in the classroom or laboratory. Through the new technology, the learner can now have access to more information over a wider range of reality than any teacher can impart. Present methods of teaching and traditional classroom equipment cannot match the arrays of graphics, illustrations and simulations which are possible to a solo learner on a visual display unit, nor can every teacher always match the effectiveness of a professional presenter of educational programmes. More fundamentally, and for the first time in education, the teaching-learning nexus at a single location and at an appointed time has been broken: the teacher is no longer essential for the dispensing of information or for the acquisition of knowledge. As teaching in a classroom was limited to providing what was judged by the teacher to be the highest common factor of information suitable for a class of pupils, the teacher could never hope to accommodate the material to the various needs and aptitudes of his pupils. Now, it is possible for every pupil to have an individualized curriculum at home, perhaps without ever visiting a school.

In view of these developments made possible by technology, the postprimary teacher cannot continue for very long in his or her traditional role. A teacher who attempts to do so will be by-passed by pupils equipped with a more advanced technology, and the teacher will be superceded by commercial and para-educational agencies which will provide more efficiently - although not preferably - for the needs of the learner. In additional to personal considerations, the teacher must adapt to the new educational environment for the sake of good educational practice.

The new postprimary teacher must acquire the difficult skill of designing authentic instructional programmes for the new technology, for radio, television and computer. To do so, a teacher must understand the structure of his or her subject and its place in general schemes of knowledge. Through his understanding of educational values, the teacher is best equipped to select material and illustrations which will be accommodated to a learner's capabilities and to the specifics of the learning process, to the full range of educational objectives. This implies the ability to assess validly the initial competency of the learner and to build further assessments into the programme. The new teacher must also be conversant with other software and learning resources on the same and related topics, and be able to advise on their quality. There will also be the need to guide the learner through the difficult task of incorporating informal educational experience in formal learning activities.

The new postprimary teacher will have to deal with a more varied clientele: the teenager, the adult, the housewife, the redundant, the leisured, the retired. The teacher must understand their varied educational needs and aspirations and be able to lead and motivate many kinds of learners without perhaps ever meeting them. Learners, even in their own homes, will need expert advice, support, stimulation and guidance. They will need help with their learning problems and with personal problems that impinge on their learning. An individualised curriculum for every pupil implies a need for social integration and for adapting personal development to a public environment. To meet these needs of learners, the teacher will have to be skilled in counselling techniques and in the applied psychology of pastoral care. Ultimately, the teacher should also be the evaluator of educational experience and be able to authenticate professionally the learner's ability, aptitudes and attainment.

If teachers respond sensibly to the new educational environment, the new teacher will have a more fulfilling and enhanced role, with minimal problems of pupil discipline and with an improved teacher-pupil relationship. The new teacher will retain the role of prime motivator and have extended roles as diagnostician, helper, guide, counsellor and evaluator as well as functions as the designer of and the expert on software and resource-based learning. As a specialist in a comparatively small area on a particular subject, the new teacher may not be attached to any school but may become available to an educational practitioner to sundry learners who require a teacher's specialist expertise.

The new situation will make demands on teachers' time in excess of the present 22 hours a week of classroom work, and holidays are unlikely to be closed seasons for learning. But there will be compensations: the teacher will no longer be tied to a school timetable or to classes, there will be greater academic freedom to pursue one's intellectual interests, better job satisfaction, greater professional esteem and status. These will have to be matched, of course, by greater expertise, more effective self-motivation, constant professional updating and the willingness to engage in inservice training.

The changed educational environment will also post challenges to those with responsibility for teacher training, both pre-service and inservice; additional needs must be mdt in the areas of curricular philosophy, subject-structures, a more specific knowledge of the learning process, of counselling techniques, of assessment and evaluation procedures, training in the design of educational software and programmes, the elaboration of a convincing personal philosophy of education. There will be need on the part of the teachers' unions for enlightened leadership in preparing their members to adapt to the new situation. It should be obvious that any attempt at inflexibility will lead to the early obsolescence of teaching as a profession and to its replacement by the commercial and para-educational interests that are already active in the postprimary sector. As Huntingdon warns: "traditional educational institutions will be required to adapt to changes in instruction, locations of instruction, and monitoring of student activities *if they are to remain viable*" (my italics).

Effects on postprimary schools

It follows from what has been said of the impact of technology on learning and on teaching that there will inevitably be radical changes and shifts of emphasis in the functions of post-primary schools. The learner's new easy access to and ready manipulation of vast quantities of information across an extended range of reality will obliterate present subject-boundaries and prescribed syllabi. As Banks suggests: "one exciting prospect for 2,000 A.D. would be the establishment of multi-subject material bank organisations which could cater for the needs of pupils of all abilities in all desired subjects". As flexi-study elsewhere meets the need for the traditional timetable and class organisation, the postprimary school modelled on the industrial factory will disappear. This should diminish and eventually remove the need to spend public funds on school transport. As the classroom, which has been the locus for three centuries of teaching-learning, becomes obsolete, there should also be very substantial savings in capital expenditure on school buildings. Schools and educational administrators will lose their functions as assessors and certifiers of educational experience and attainment, and this in turn will remove the functions of postprimary schools as economic filters and as agents of social mobility.

Schools will still have essential functions in the new situation. The individual curriculum implies the necessity for social integration, so learners - particularly adolescent learners - will more than ever require social education and this is best done in postprimary schools. The multi-purpose hall will be more necessary than ever as gymnasium, theatre, concert hall, assembly and meeting place. It has been found from the experience of distance-learning in other countries that small-group encounters, preferably with a tutor, are necessary as a support for home learning, so rooms will still be needed in schools for this purpose, for individual counselling and pastoral care sessions. Although training in work-skills will pass even more substantially from schools to industry and commercial firms, there will still be a need in schools for laboratories, practical rooms and work-shops to allow learners to practise the skills and do the experiments that they will encounter through their personal technology. Physical education will always remain a necessity, so the need for games facilities and sports complexes will continue and probably increase. There is some irony in the situation that the essential function of postprimary schools in the future will be to cater for the extracurricular rather than classroom activities. Without further discussion at this stage of the future postprimary school, one can reasonably deduce that it will be much smaller in physical size through the irrelevance of minimum class-numbers and teacher-quotas and that its architecture will be quite different through having to reflect the changed functions of the school.

Assimilating the revolution in educational technology

The changes which took place in postprimary education in this country during the 1960s and 1970s have been extensively documented by Randles and Coolahan.[16] In general, the changes were sporadic and spasmodic: the outcome of instinctive responses to educational needs, to a rising economic tide, to occasional international influences, rather than the result of comprehensive planning or of the actualization of indigenous research or local philosophical conviction.[17] The current phase of educational change, however, will be compelling, inescapable, revolutionary: profoundly affecting and utterly altering the role of teachers, the functions of schools and the very nature of learning and education at secondary level. This imminent revolution will come, not from any philosophical or religious insights, not from any economic developments, nor from any new departures in psychology or sociology, but entirely from the impact on education of technology, from technology which is readily available and already popular with the general public. Mitchell summarizes the coming changes:

> the emergence of interactive video-systems, cheap micro-processors programmed for a specific instructional purpose and increasing interest in distance education schemes presage a radical drift to home- and job-based education. [18]

The first prerequisite in coping with this "radical drift" is a realisation by the Minister and Department of Education of the extent and the implications for our educational system of the developments in technology. At one stage, there seemed to be some recognition of what is happening: the White Paper on Educational Development issued in 1980 referred in the case of third-level education to "such developments (in information technology) may well lead to wholesale alteration in organisational structures . . ."[19] and more generally to "these (developments) will have a bearing not only on what is learned, but on how it is learned".[20] No positive action to follow through these insights, however, was proposed in the White Paper and by 1984 the vision seems to have faded.

The terms of reference recently assigned by the Minister of Education to the newly established Curriculum and Examinations Board and the Minister's "Programme for Action in Education 1984-1987" display no evident awareness in the Department of Education of the significance for education of the current developments in technology or of the certain acceleration in technical advances in the near future.[21] There are references in the Programme and in the briefing of the Curriculum and Examinations Board to possible alternative curricula for postprimary schools,[22] but technological progress now permits personal curricula and learner-steered education. Neither the White Paper of 1980 or the Programme of 1984 takes account of the relevance of advances in technology to the design and content of curricula, to the assessment of learners' performance, or to the problems raised for accreditation for employment or for further education. It is imperative for this country not to follow slavishly the sequence of technological development already traversed and left behind in other countries: what is redundant elsewhere should be by-passed and we should come in on the current stage of development - thereby saving time, energy and capital resources.

There are problems to be solved in making the necessary radical re-orientation of our educational system. Some Irish homes have acquired a telephone, radio, television set, recorders and domestic computer, but many other household lack at least some of this equipment. As earlier suggested, there should be an early policy of diverting resources from school transport, at present costing some £30 millions a year and likely to rise otherwise during this decade, to a system of grants that will enable every learner to have in his or her home the apparatus just listed.

A more fundamental problem is the general shortage of software and of self-instructional radio and television programmes. The earlier scarcity of commercial software is being rapidly overcome, but the shortage of educational software and self-instructional material remains. This will inevitably be met by commercial and para-educational interests which are already active in supplying educational needs, but it is essential that educational software and programmes should be devised by educationalists, with valid educational ideals and values, by teachers in particular. Apart from any other consideration, only the body of teachers are sufficiently numerous to supply the volume of software and educational programmes required to service the technology.

The production of such material necessitates that the teacher be an expert in a comparatively small part of his or her subject and be able to integrate a programme in the general structure of the subject. Fortunately, the collative facility of the computer itself affords the means of doing this and the valuable insights and extensive resources provided over the last three decades by those working in Curriculum Development can supply the methodology for software integration. The teacher must also be trained in the specific of the learning process, in Cognitive Psychology and Epistemology, to a degree much more sophisticated and more scientifically rigorous than the objectives assembled by Bloom, Krathwohl and Harrow.[23] The teacher must be prepared to design the instructional programme, whether it be for radio, television or computer. This requires familiarity with computer procedures and with the needs of radio and television production. As Mitchell argues, all this may entail adapting the theory of knowledge to the new technology at the disposal of the learner.[24]

The first priority therefore of the Minister and Department of Education must be a massive programme of teacher training and re-training. Capital resources at present assigned to the building of classrooms that will be obsolete even in the short term should be re-allocated to the training programme so that adequate software of a high educational standard can be made available for the existing technology. It must be stressed the problems of teacher-training, of providing educational software and of issuing equipment grants are not technical, but personal and political.

A fundamental change in education will inevitably have a deep, rippling effect on the whole of society: on economics, medicine, politics, social behaviour, morality, religion. In addition, it requires little imagination to visualise the problems that will be posed for rulers, religious leaders and cultural guardians in a situation in which people in general will have easy access to unlimited sources of information that will transcend national boundaries and in a situation in which there will be cheap facilities available to anyone who wishes to make radio and television transmissions indiscriminately. In the meantime, we must cope with the opportunity and the challenge presented by technology to politicians and educational brokers, with the reality in which there will certainly be a "diminished role for the conventional school with the bulk of educational experience occurring under alternative systems".[25]

REFERENCES

1 Briggs, A., The Communications Revolution. Ludwig Mond lecture, University of Manchester, 1979.

2 Velaskis, K., The Information Society : the issue and choices. University of Montreal, 1979.

3 Owens, D. and Devitt, T., A Plan for Educational Broadcasting, R.T.E., Dublin, 1982, chap. VI.

4 Gwyn, R., "Information technology in Education : The Future's Challenge" Irish Educational Studies, Vol. 3, No. 1, p. 1.

5 Noble, P., "Open Systems for Open Colleges" in Educational Technology To The Year 2000. (London : Kogan Page, 1980), p. 183.

6 Lawler, E. J., "Educational television : the present and future" in Educational Technology To The Year 2000. (London : Kogan, 1980), p. 334.

7 Owens and Devitt, op. cit., chap. VI.

8 Ashworth, J. M., Keynote Address in Educational Technology To The Year 2000, op. cit., p. 13.

9 Ibid., p. 87.

10 O'Connell, J. A., "Problems and trends in computer aided education", Irish Educational Studies, Vol. 3, No. 2, p. 201.

11 Lawler, op. cit., p. 335.

12 Toffler, A., Future Shock, (London : Pan Books, 1971) p. 249.

13 Mitchell, P. D., in Educational Technology To The Year 2000, op. cit., p. 301.

14 Ibid., p. 331.

15 Ibid., p. 107.

16 Randles, E., Postprimary Education in Ireland 1957-1970 (Dublin : Veritas, 1975).
Coolahan, J., Irish Education : history and structure (Dublin, I.P.A., 1981).

17 World Bank, "Education : sector policy paper" (Washington : World Bank, 1980).

18 Mitchell, op. cit., pp. 295-6.

19 Department of Education, White Paper on Educational Development, (Dublin : Stationery Office, 1980), p. 75.

20 Ibid., p. 51.

21 Department of Education, Programme for Action in Education 1984-1987, (Dublin : Department of Education, 1984).

22 Ibid., 5.3.

23 Bloom, B. S. et al., Taxonomy of Educational Objectives (New York : David McKay, 1956).
Krathwohl, D. R. et al., Taxonomy of Educational Objectives : The Affective Domain (New York : David McKay, 1964).
Harrow, A. J., A Taxonomy of the Psychomotor Domain (New York : David McKay, 1964).

24 Mitchell, op. cit., pp. 297-8.

25 Dicks, D. and Goldevein, G. in Educational Technology To The Year 2000, op. cit., p. 214.

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INFORMATION TECHNOLOGY - ITS IMPACT ON IRISH EDUCATION

Brendan Mackey

SUMMARY

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Three years ago I wrote an article for the Department of Education journal *Oideas* on the subject "The Computer at Second-Level". It was an attempt to anticipate the effects of what we generally call "the Computer Revolution" would have on our secondary education system. In preparing the present article, I looked back on this earlier one and asked myself what had changed in the meantime. Two trends are very evident. Firstly, the rate at which the technology is infiltrating almost every form of human activity has exceeded even the warnings of the most ardent technocrats. The Microcomputer is becoming more powerful, cheaper, and hence more accessible to the general public than anyone had anticipated. I certainly did not think that by Christmas 1984 the Micro would be the number one "toy", and that stocks of Microcomputers in Ireland would be sold out weeks before Christmas. I might add at this point that we are discussing not a toy but the most powerful educational tool ever developed. Secondly, we have tended to use the term "Information Technology" more and more in preference to "computers". I think it important to stress that we do not take the Microcomputer in isolation, but regard it as a member of a rapidly evolving family of technologies which we generally group under the heading of Information Technology. For the purposes of this article, I take Information Technology to mean Computers and Telecommunications, i.e. those technologies associated with storing, processing and transmitting information. It is important that we should not isolate computing from other developments such as satellite and cable systems, video discs, etc. It is the convergence of these technologies that will profoundly effect our Education system.

Educational Technology - Do we need it?

One of the disturbing aspects of the present use of Computers in Education is the number of Educators who feel obliged to use computers more in answer to some popular demand than from any sense of conviction as to the benefits of their use. The use of a technology which has been described as "revolutionary" must surely be based on better reasoning than this. Its use can, I believe, be justified on two main grounds - namely, its ability to meet the needs of an Information Society, and its relevance to the Education process.

The Information Society

The volume of information accumulated by man doubles every four to seven years. This Information Explosion has meant that man is rapidly reaching the stage where he will be hard pressed simply to acquire the available information in his lifetime without improving or adding to it. From a purely educational viewpoint, it has been argued that pupils fifty years ago were relatively better educated in that they had access to a greater proportion of the available information at that time than their counterparts today. Put in this context, the computer is less of a revolution, and more the invention of a technology necessary to handle quantities of information which the human brain with its limited capacity is no longer able to store or act upon. In the Information Society, the emphasis is less on the acquisition and retention of information and more on the application of it. Perhaps the technology will finally free us from the need to concentrate on the former and allos us finally to concentrate our intelligence on the latter, to the ultimate benefit of Society.

This new emphasis on the application of knowledge is, I would argue, a far more valid educational objective than the mere acquisition and retention of it and will, I believe, have a profound effect on our approach to Education in the future. But an Information Society means more than that - it means a society in which information will, for the first time in history, be universally available to all its members. The technology now exists to make this possible, and the social and political implications are giving rise to some wild speculation: how, for example, will the "open information" system affect the "open Societies" of the West, or the "closed Societies" of the East? And what will the eventual political results be? That problem we will have to leave to the political scientists - here we are concerned more with the educational effects.

"Schooling vs. Education"

The educational needs of an Information Society will differ in many ways from those of an Industrial Society, but three of these will be of crucial importance to the formal Education system. I refer firstly to the basic modes of instructional delivery used and, secondly, to the spectrum of Society which it serves and, thirdly, to the concept of Continuing Education. The three are obviously inter-connected but to begin with the first:

the system of instructional delivery which has served us for several hundred years now is what I would call the "Schooling System". It involved taking the learner to the source of knowledge. This was necessary in an age when the storage and disemination of knowledge was based on Print technology - a technology based on a scarce natural resource. Under these circumstances, the sources of knowledge, both material and manpower, were limited; in short, if you wanted advanced education you went to Oxford or Cambridge, where the resources you needed had been accumulated. On a local level, you went to a school where these resources were again provided. One great social disadvantage of this system was that, by its very nature, it could only be availed of by those who could afford to live away from home at a centre of learning for a number of years and, despite our protestations of "Education for All" and "free" education, this unequal system is still with us today. We seem to forget, however, that it is based on a structure which has now been superseded.

Continuing Education

If we further accept the fact that we have a rapidly changing Society and further accept the rapidly changing nature of the information necessary to the functioning of that Society, when we can no longer be content with a system of Education based on the premise that a young person who attends a school up to the age of eighteen years is educated for life. Even now we speak of "educating people for life". I would suggest to you, however, that this will require a lot more than just broadening the curricular content of our present school system, laudable as that concept is in itself, but will involve making education a life-long process. This is the whole basis of Continued Education, one which cannot be serviced by the existing structures. We should never forget, as we are in the process of restructuring our Education system and setting up a Curriculum and Examination Board, that we cannot deliver the educational needs of the twenty-first century in a vehicle designed for the nineteenth century. This may yet prove to be our greatest mistake.

With the availability of Electronic media for the storage and dissemination of information, it is no longer necessary for us to rely on the resources of previous centuries - in short, we can now deliver the knowledge to the learner. For the first time it may be possible for us to create a system whereby full education can be made available to all. We have the capability to move from an Education system that was the by-product of an Industrial Society to one that would be an integral part of the Information Society, and could, indeed, by providing a full education system for all, give new meaning to the very term "the Information Society".

Relevance to Education

It must be conceded, however, that no matter how well the economic or social arguments are put, unless the Information Technologies of which we speak are actually relevant to the teaching and learning processes themselves, then their use in the Education system is suspect. We could at this stage simply point to the very nature of the technology itself: the Computer as an Information Processor information being the raw material of the Education industry, and claim that as such it is an Educational machine. Or we could point to the fascination which young people have with computers and use this as our argument for using them - but this would be a very superficial view to take. I would summarise

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my whole approach by saying that the key to the use of technology in education is whether it enhances education by encouraging learning, and this is what I believe it succeeds in doing when properly used. Like television, it presents information in a more attractive form, and hence encourages the acquisition of knowledge.

I would also argue that if Information Technology is to be of benefit to Education, then it must help to alleviate some of the problems inherent in our present system. With the limited amount of research that has been done to date, there are some very positive pointers to areas where the use of technology can enhance teaching, learning, or both. Firstly, the emphasis is more on learning and less on teaching. Education becomes a pupil-centred system, with strong emphasis on the development of learning skills. Instead of training our students to retain information, we will be teaching them how to acquire and apply information.

Mixed Ability Teaching

One of the fundamental problems in our present classroom methodology is that a teacher can only teach at one level at a time, and no matter how good a teacher he is, inevitably some of his class will be left behind, and some of the brighter pupils will be neglected. This is a direct result of our present system of classroom instructional delivery, and will remain so until we change that system.

Remediation

A special word needs to be said about this problem, those who are "left behind", because, firstly, it is one of the major failings of our present system and, secondly, research with Computer Assisted Learning in this area has had some remarkable results. The use of interactive Microcomputers or "work stations" brings us close to the "one-to-one" situation so ideally suited to Remedial Education, but so impossible to achieve using a human resource alone. It is the perfect example of where the human resource has been stretched to its limit, and needs a technology to extent it (you will note that I never regard the technology as replacing the person - the proper use of technology, like any tool, is to extend the human capacity, not to replace it). The use of technology at this stage carries with it another benefit - we can begin to create a new system of learning at the point where learning difficulties begin - the opposite to the present "top-down" design of our Education system which is proving such a failure.

The New Media?

The school text-book has become a serious problem in recent years. Its inflated cost and inflexibility in handling rapidly changing information has meant that it is no longer capable of fulfilling its role as the main information resource of our system. The trend nowadays is to replace Print technology with electronic media of information storage, and surely this should be the case in Education? Perhaps the word "replace" is a bit harsh - it need not necessarily replace, but supplement. We must not forget that when television arrived the prophets of doom forecast the end for radio, and certainly for books. In fact, as recent controversies bear out, radio was never stronger, and we are reading more books than ever. A new means of disseminating information, such as television, will simply encourage people to seek knowledge, and hence increase rather than decrease the relevance of the existing Media. Hence I am convinced that the use of computer-based educational resources would result in an increased usage of existing resources, rather than replace them.

Motivation

The successes in remedial education brings me to perhaps the greatest argument in favour of using Information Technology in education - the Motivation factor. We all know that children love television, and recently we have become aware of a fascination, sometimes approaching addition to Microcomputers. Those of us who have experience of using Micros in schools will tell you that students will gladly give up their free time to learn (not just to play games) on them. What worries me is that we have made no effort to understand this fascination, or to capitalise on it. As mentioned earlier, the key to the successful use of Technology in Education is its effectiveness in encouraging learning, and the motivational factor is the basis for this. We have not done enough research yet to establish with any academic accuracy the roots of this motivation, but our experiences to date enable us to establish some of the factors involved. The emphasis is on learning rather than teaching. The student has control over his own learning environment. This involves two very important parts of the learning process which are sadly lacking in our present system, namely, student involvement and the element of discovery. This, allied to the more attractive presentation, may hold the key to the fascination which computers hold for young people. What a pity that we understand so little of the learning process - we should be able to utilise the motivational factor to the full in Education.

Humanising Influence

I feel that a word needs to be said on the fear of the de-humanising effect of technology. I would argue that, by releasing the teacher from the routine task of transmitting information to an over-crowded classroom, we are allowing him to give more individual attention and support to his students. He becomes less of a Censor and more of an Advisor. The proper use of Information Technology (to extend, and not replace the human resource) can have a very humanising effect on the situation.

Continuous Assessment

In our efforts to replace, or at least supplement, the terminal examination some form of Continuous Assessment would seem to be the answer. However, under our present system it would be unworkable. Teachers know of the disruption caused by term examinations and find it difficult enough to ensure that two weeks of each term is not lost to facilitate them. We have now begun to order our test papers from outside agencies, and even to have them corrected by them. Another great disadvantage of the written terminal examination is, of course, its over-emphasis on the retention of knowledge as distinct from the acquisition and application of it. Quite simply it is not possible to teach and assess effectively at the same time. However, as anyone who has used a simple "drill and practice" routine will know, a computer will keep a result and store it in a student record with no extra effort, cost, or time taken. Once again, it may be that we meet another need which cannot be met by existing human resources within the present system, where the use of technology to extend that resource is required.

In some of the above areas, I have just hinted at the possible impact which the use of technology could have on our Education system. There are others - administration, for example - which are not within the remit of this present article. But there is no reason to believe that a technology which has been developed to extend man's brainpower as the machines of the Industrial Revolution increased his muscle-power, should not have profound effects on the way in which Society acquires, retains, processes and disseminates knowledge.

Will It Pass?

I would now like to address myself to some of the common arguments used to dismiss the use of Information Technology in Education, and to some of the many genuine questions raised by those who are unsure of its possible impact.

One of the most common attitudes encountered runs somewhat like this: "Yes, here comes yet another 'new' technology . . . we heard all this before, but the other 'revolutions' came to nothing so why should we expect any better of this one?". True - looked at superficially, one could argue that historically technological developments have had very little real impact on Education. With the coming of the motion picture, teaching machines, programm-d learning and television, we were promised revolutionary changes in our Education system - and, on the surface, it appears that little has, in fact, changed. I would, however, question this. Firstly, I would argue that we tend to use a very narrow definition of education - when we use the term "education", we, in fact, mean schooling, and, secondly, I would argue that even in schooling quite a lot has changed as a result of technological innovation. For one thing, within the school system the type of student with which we deal has been changed greatly by the arrival of such media as television. In fact, I believe that one of the great problems facing our school system is just how to deal with a more sophisticated student body.

I would further argue that, mainly because of conservatism within the Education sector, teelvision has not been allowed to play its full role in education. Notwithstanding this, however, it has had an enormous impact if we take Education in its widest sense. Are news programmes and documentaries not educational? Quite a lot of people learned more about Irish history through watching Robert Kee's programmes than they did through formal classroom education. And yet when we think of Education, we tend to think only in terms of formal classroom teaching. In the few noteable cases where television was allowed to play a fuller role the results were extremely successful. I might instance the Children's Television Workshop and the Open University.

The use of Information Technology in Education has not had a very good press. Before passing judgement on it, or condemning it out of hand as some educationalists do, it is important to understand that it is only in its infancy. Good educational courseware, for example, is extremely rare, and certainly has not been given the time or the exhaustive tests necessary to gauge its real effects. The arrival of even one Microcomputer in most of our schools is only a very recent event. It is as if one were to condemn the use of the text-book as the proof-reading stage, and when very few teachers were capable of using it. What Educational Courseware is available to date has, in general, been produced by Computer Programmers with little knowledge of education and is used by teachers with little knowledge of Computing.

There has also been a tendency to judge the success of Information technology in terms of traditional academic achievements - testing a new technology in an old environment is not likely to produce positive results. Despite claims that the use of technology will change the emphasis from the mere retention of information to the acquisition and application of it, quite a number of the surveys carried out on its effectiveness tested little more than the retention element using traditional methods. Little wonder that "no significant improvement" was often the result. This technology was not intended to reinforce out-dated modes of education - it should replace them. Learning to drive a car will get you to your destination faster and in more comfort - will not improve the way you ride a bicycle.

Cost

Another common question raised about the feasibility of using Educational Technology effectively is the one of cost, or more correctly, cost-effectiveness. It is often claimed that the cost of providing access to a "work station" for even a fraction of our school-going population would be prohibitive. However, this argument assumes that the Education Authority will have to provide the computers and in view of recent trends may well be the perfect example of applying yesterday's solution to tomorrow's problem. If we study the trends, we find that the purchase of Micros has doubled each year since 1980 in both the U.S.A. and Britain. It must surely be evident that people are willing to equip themselves, or in this case their children with the necessary "hardware". With the rapid decrease in cost, and increase in power, how long can it be before students entering our schools will expect to find Computing in them as a matter of course?

However, possibly the most disturbing aspect of the question "Will it pass?" is the very question itself. I have no doubt that if we ignore the "Computer Revolution" it will, like all revolutions, pass. But what we really should be asking ourselves is: "If we allow it to pass, what sort of formal education system will it leave in its wake? What will we have missed?" The very attitude implied in the question reminds one of a hitch-hiker guessing that the next car won't stop, either. In both cases, being right is a poor consolation. It is my own opinion that if our education system fails to utilise the Information Technologies now available to it, it will rapidly become irrelevant to the needs of a young population preparing to live in an Information Society.

What to do

If we are convinced that Information Technology is going to profoundly affect the Society in which we live, that this technology has, by its nature, a special relevance to Education, and that our Education system has a vital role to play in shaping the new Society, then we must formulate a National policy on the use of Information Technology in Education. We should ensure that we do not take the narrow path of simply creating another subject to be studied and examined, but to integrate the technology into our education system. We should adopt the Interdisciplinary or Modular approach - develop relevant modules for existing subject areas, research the various used of technology as an Educational Aud and an Educational Resource, to develop alternative modes of instructional delivery, so as to create a system of education not tolerated as part of an Industrial Society, but forming an integral part of an Information Society.

Computer Literacy

In conclusion, I would like to say a word on the concept of Computer Literacy. It has generally been taken to mean that which a person would need to know in order to function in a Computerised Society. This has led, especially in the U.S.A., to a swing away from the academic to the technological, and many people there believe that the Education system has swung too far: it seems that we tend to go to extremes. The result has been that "academic" literacy has tended to be replaced by "technological" literacy. I would hope that in this country we would avoid this mistake. The very educational relevance of the technology should assure us that we need not abandon traditional academis criteria in order to produce a nation of technocrats. We can concentrate on using the technology to enhance the existing system and, in doing so, the users of the system will become Computer Literate. To me, the term "Computer Literacy" means that by using Information Technology wisely as part of an education structure, we become literate in both the technological and academic sense.

REFERENCES

Computers and Education World Yearbook of Education 1983/'83, ed. Megarry, London : Kogan Page Ltd.

Informational Technology and Its Impact on American Education 1982, Office of Technology Assessment, Washington.

Mindstorms - Children, Computers and Powerful Ideas Seymour Papert (1980), Brighton, Harvester Press.

Special Technology for Special Children E. Paul Goldenberg, 1979. Baltimore MD. USA. University Park Press.

The Wealth of Information Tom Stonier (1980). London, Methuen.

The Computing Teacher (monthly) Journal of International Council for Computers in Education University of Oregon, U.S.A.

Technological Horizons in Education (monthly Journal) Arlington, U.S.A.

Riomhiris na Scol (Journal) Computer Education Society of Ireland.

Irish Educational Studies, Vol. 4, No. 2, 1984.

AN GHAEILGE I gCURACLAM NA BUNSCOILE

Eoghan Ó Súilleabháin

Is féidir a rá gur cosúil ag a lán againne iad an Ghaeilge agus an Curaclam nó an Creideamh agus an Bíobla,-i ngach cás acu nach gcleachtaimid dóthain den chéad cheann agus nach léimid puinn den dara ceann. Ní miste mar sin scrúdú iomlán (coinsiasach!) a dhéanamh are aidhmeanna an churaclaim úd.

1. A chur ar chumas an pháiste saol iomlán mar is dual do pháiste a chaitheamh.
2. É a ghléasadh le leas a bhaint as an iarbhunoideachas chun go mbeadh saol iomlán sochrach aige ar ball ina dhuine fásta i measc on phobail. [1]

Is dealraithneach,mar sin, gur mithid don dalta bunscoile ní amhaín teanga(cha) a thimpeallachta a fhoghlaim chun "saol iomlán" a chaitheamh ach chun bheith ar chaighdeán oiriúnach Gaeilge le dul chun cinn san iarbhunscoil; is é sin go mbeidh cumas fónta fírithe aige ar Ghaeilge a labhairt, a scríobh, agus a léamh, ag fagáil na bunscoile dó. Ach ní mhínítear go cruinn in aon áit sa churaclam cad is "saol iomlán" nó timpeallacht ann nó ní luaitear critéar (cumas fónta) ann.

Is fada anois ó bhí a lán againn in ár ndaltaí bunscoile nó iarbhunscoile, agus is mór idir an dá linn mar a tharla

> Feidhm na Bunscoile ag athru;
>
> Sular cuireadh oideachas iarbhunscoile ar fáil don uile pháiste, ba í an bhunscoilaíocht amháin a bhí ar fáil do chuid mhór dár muintir. Measadh, mar sin, go mba chóir na páistí, ar chríochnú a dtréimhse bunscolaíochta dóibh, a

bheith gléasta chomh maith agus ab fhéidir sin chun dul i ngleic leis an saol.
Measadh go raibh sé ag brath ar cé chomh hoilte is a bhí an páiste sna bunscoileanna de leithéid na léitheoireachta, na scríbhneoireachta agus na ríomhaireachta, cé acu an éireodh leis sa saol nó a mhalairt. Tuigeadh, afach, ó thús ré chóras na Scoileanna Náisiúnta nárbh ionann an litearthacht agus an uimhearthacht agus oideachas, agus rinneadh iarrachtaí ó am go chéile ar an gclár teagaisc a fhairsingiú agus ar shainiú a dhéanamh ar mhodhanna teagaisc i gcás gach ábhair ar leith.

As a shon sin, mhair an tuairim gurbh é príomhaidhm na scoile an t-oide a dháil eolais ar na daltaí . . .

Ba chóir go mba chumasc é curaclam na naíscoile den ghníomhaíocht aonair, den ghníomhaíocht ghrupa agus den ghníomhaíocht ranga. Ba choir go mba é an saothar aonair agus an saothar grupa is mó a dheanfaí: níor chóir saothar an ranga mar aonad a bheith i gceist ach amhain le linn na scealaíochta, na dramaíochta, cluichí agus ceoil. (An Naíscoil, lch 3).

Ceann de na nithe is suntasaí a tharla le blianta beaga anuas ná na prionsabail seo a bheith a gcur i bhfeidhm i ranganna seachas na naíranganna i gcuid de na scoileanna. Sna bunscoileanns is mó atá chun cinn bíonn páirt níos gníomhaí anois ag na páistí san oideachas a chuirtear orthu . . . Ní tríd an rangtheagasc is mó a fhodhlaimitear na bunscoileanna ach tríd an saothar aonair agus an saothar grupa, gach páiste ag dul ar aghaidh ar a luas nadúrtha féin, lándeis á fáil ag gach duine acu i ngach céim dá fhorás lena phearsantacht féin a fhoilsiú agus le haoibhneas na fionnachtana a bhlaiseadh, treoir á thabhairt do gach duine acu chun ábhar éagsúil cuí léitheoreachta a bhreathnú le raon a dhearcaidh a fhairsingiú agus lena phearsantacht a shaothrú chun saibhris . . . Taighde a rinneadh le deireanas ina lán tíortha ar phróiséis fhoghlama agus fhoráis an pháiste, léiríonn sé, áfach, gur dócha gur mó brí agus cuspóir don pháiste an t-eolas a fhaigheann sé trína thaithí phearsanta agus trína chuid fionnachtana féin ná an t-eolas a fhaigheann sé ar athláimh. Tuigtear anois gurb é an páiste an gníomhaí is feidhmiúla i gcúrsa a chuid oideachais féin. I gcás amháin, nuair a thugann sé faoi fhadhbanna a réiteach as a stuaim aonair féin,

> téann forbairt ar an bhféinmhuinín agus ar an neamhspleáchas ann; ar uaire eile, ag obair dó mar bhall de ghrúpa nó rang, tagann tuiscint dó ar fhiuntas an chomhoibrithe agus téann forbairt shoisialta dá chionn air.
>
> Ní hé atá san oide a thuilleadh duine nach bhfuil de ghnó aige ach eolas a dháileadh, ach duine a sholáthraíonn ócáidí oiriúnacha chun foghlama, a threoraíonn agus a spreagann an páiste sa tóir ar an eolas. Go deimhin, dhealródh sé go raibh tuar na feidhme sin i bhfocail on Phiarsiagh:
>
> What the teacher should bring to his pupil is not a set of ready-made opinions, or a stock of cut-and-dry information but an inspiration and an example; and his main qualification should be, not such an overmastering will as shall impose itself at all hazards upon all weaker wills that come under its influence, but rather so infectious an enthusiasm as shall kindle new enthusiasm. 2

Tá an méad sin thuas go breá, de réir na teoirice. Is féidir le daltaí foghlaim as a stuaim féin, ar a luas féin ina dtimpeallacht féin. Ach ní miste cúpla ceist a chur: Cad a thárlaíonn i gcás thromlach na ndaltaí, iad siúd nách mbíonn an Ghaeilge le cloisteáil sa bhaile nó sa gharthimpeallacht áitiúil acu?: An mbíonn sí le foghlaim acu ina ainneoin sin?: Cé chomh fada agus is féidir le múinteoir timpeallacht Ghaeilge a chur ar fáil sa scoil? San alt seo ní féidir ach freagraí gearra a thabhairt ar na ceisteanna sin.

Ar an gcéad dul síos, is cuid den timpeallacht é an múinteoir féin: más i nGaeilge a smaoiníonn, a chruthaíonn agus a labhraíonn sé, fiú cuid den lá scoile, ní féidir le daltaí an Ghaeilge sin a sheacaint. Ar an dara dul síos, bíonn, i ngach rangsheomra, ballaí ar féidir le múinteoir focail Ghaeilge le pictiúir, postaeir, cairteacha agus léarscáileanna a thaispeáint orthu. Ar an triú dul síos bíonn rudaí le foghlaim, le múineadh agus le cleachtadh; is féidir a lán díobh seo a chleachtadh i *nGaeilge* ach an cur chuige a bheith i gceart. Ag an bpointe seo, castar struchtúir an teagaisc linn. Ní hé go ndeir an curaclam nua le hoide go díreach gan coincheapa nua a mhúineadh sa dara teanga, ach moltar an túsobair a dhéanamh sa teanga theaghlaigh (lgh 269, 337, Cuid I; I, 111, 208, 284, Cuid II). Más i mBéarla a smaoiníonn oide de ghnáth is deacair leis iompó ar an nGaeilge gach 'ra seal mura mbíonn fáil aige ar struchtúir, nó ar áiseanna coincréideacha mar iad siúd thuas luaite lena threorú ar ais. Is beag oide a mbíonn fonn air, nó am agus cumas aige, áiseanna a dhiongbhála a chruthú dó féin.

Is dealraitheach ón taighde atá déanta ag Eoghan Mac Aogáin, go bhfuil thiar ar an nGaeilge i measc oidí a chleachtaíonn na stíleanna neamhfhoirmiúla teagaisc a chuireann béim ar thimpeallacht an dalta mar thosca foghlama sa churaclam nua:

> Informal teachers place less emphasis on certain basic skills, reading and writing in Irish, and spelling in English. The effect is largely confined to the lower grades, from second class down . . .
>
> Finally, the study shows that the informal approach is associated with a slight lessening of emphasis on certain basic skills, reading and writing in Irish, and spelling in English. The effect is confined to the lower grades and no differences between formal and informal teachers was recorded for emphasis on handwriting and grammar in English, or on oral skills in either English or Irish. The effect is larger in Irish than in English, which suggested that Irish is associated with 'formal' teaching in some of its pejorative senses. Certainly Irish, or indeed any second language, poses a problem for educators who are intent on maximising the continuity of life within the school with life outside it. The fact that informal teachers do not place any less emphasis on oral skills (in Irish or in English) than their formal counterparts is probably due to the

> movement away from written language in the new curriculum and, more generally perhaps, to the functionalism which is inherent in the informal approach . . .
>
> (p. 16-19) : 1981
>
> My data show that informal teachers are less effective than more formal ones in teaching Irish and certain areas of English . . . (P.22 - 1982).
>
> . . . With regard to the Irish results, I have already noted that informal teachers in the lower grades report a lesser emphasis on basic reading and writing skills in Irish than their formal counterparts . . . This was explained by the value which the informal approach puts on learning which is continuous with the child's own experience in its natural environment outside the school. Obviously Irish, and indeed any second language will suffer under such an ideal of learning. We know that English reading standards continue to rise in Dublin city schools . . . The same cannot be said for Irish. Here the deficit attributable to the informal approach is considerable in size, it extends to all the skills tested and the trend in standards in the population as a whole seem downwards . . .
>
> These are findings which will have to be borne in mind in future discussions of the primary school curriculum . . . 3

Ní miste mar sin, i gcás na Gaeilge ach go háirithe, cloí cuid mhór fós leis an rangtheagasc foirmiúil - atá bunúsach agus coitianta in obair na scoile - nó go bhfuasclófar fadhbanna in ionaontú abhar agus i soláthar áiseanna - cartaí oibre san áireamh;

> The only item of information in the present study which touches on teaching technique is the percentage of time spent by the teacher teaching the class as a unit and here the data show a high rate of didactic teaching, both for formal and informal approaches, with only a marginal difference between the groups. Nothing in this study

> is therefore in conflict with those studies which have shown that traditional, didactic teaching is still the basic technique used by all teachers, both here and in Britain.[4]

Ní hé amháin go spreagann an curaclam nua seo teagasc neamhfhoirmiúil bunaithe ar chúlra an dalta ach go n-éilíonn sé an teagasc sin a bheith aontaithe,* chomhtháite chomhghaolaithe agus, ag an am gcéanna, roinnte i seacht gcuid : is ríléir anseo an t-achrann atá fós sa churaclam, - idir an teoiric agus an áisiúlacht ann:

> Is é on modh traidisiúnta a bhí ann leis an gcuraclam a ionramháil ná a scaradh ina ranna ar a dtugtaí ábhair léinn, tréimhsí áirithe ama a dháileadh i rith an lae do theagasc gach ábhair díobh agus iarracht a dhéanamh, de réir mar ba thráithúil sin, ar chuid de na hábhair sin a chomhghaolú.
>
> Is í an loighic agus ní hea an tsiceolaíocht is bonn don chur chuige sin and cuireann sé an bhéim ar cad é ba cheart a mhúineadh don pháiste

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* Fadhb théarmaichta anseo má bhaintear feidhm as fochloirí Dé Bháldraithe agus Uí Dhomhnaill, nó as 'Tearmaí Oideachais' na Roinne Oideachais, chun Gaeilge a chur a chiall oideachasúil an fhocail "integration".

'Chomhghaolú' = (correlate) Correlation (O D. Lch 285).
'Chomhtháthu' = Fusion, Cohension, Coalescence, Integration (O.D. lch 289).
Integration = Slánu, suimeáil (De B. lch 273).
'Integration' = Imeascadh (of schools), Comhtháthu (in general) (T.Oid. lch 13).

Tá sé de locht ar 'Chomhthathú, 'Chomhghaolú', gurb é is tus leo ná an reamhmhír "chomh" a thugann le fios go bhfuil dhá aonad ann cheana agus iad á gcur taobh le cheile. Ni leor ach oiread brí na préimhe 'gáol', 'táigh', 'slán', nó 'suim', mar ní léir uathu gur aontú atá i gceist. Dar liom, gur gá téarma nua a cheapadh, leis an reamhmhir ion-/in - (endo) (O.D. lch 709) - ar aon dul le 'inspreagadh' nó 'ionsoilsiu': - agus mar sin, san alt seo, usaidfear an tearma "ionaontú" don toradh inmheánach, oideachasiúl úd ar mó é na suim na gcomhchodanna ann.

> in áit cad é mar ba chóir dó é a fhoghlaim ag gach céim den fhorás aige . .
>
> Ina theannta sin, ní léir don pháiste óg teorainneacha a bheith idir ábhair léinn - is é atá san eolas, dár leis, ná an eochair a osclóidh an saol dó agus síneann raon a chuid ceistiúcháin faoin saol ina thimpeall thar réimse iomlán an eolais. Ba chóir go mba scathán an curaclam ar aigne seo an pháiste agus go mba léir as gur aonad amháin comhtháithe é seachas struchtúr loighciuil comhdhéanta de pháirteanna a bhfuil idirdhealú ar mhaithe le hoiriúnacht déanta orthu. 5

Deirtear linn go bhfuil

> comhthathú an churaclaim le sonrú:
>
> (i) i sprid an chreidimh agus na saoranaíochta a thugann beatha don iomlán;
>
> (ii) san aitheantas a thugann sé don teanga labhartha, don mhatamaitic agus don réaladh ealaíne, ní amháin mar limistéir eolais agus gniomhaíochta, ach thairis sin, agus níos bunusaí fós, mar mheán trína n-eagraítear agus trína mbaintear lánbhrí as gach uile eolas agus cleachtadh.(Curaclam na Bunscoile lgh 19)

Ach ansin, "ar mhaithe leis on aisiúlacht", -seanleithscéal- roinntear an curaclam aontaithe seo i seacht ngnéithe ar beag an difríocht idir iad agus seacht n-abhar:

> Ce go gcaithfear go bunúsach glacadh leis an gcuraclam mar aonad comhtháite, ina bhfuil eagar a chur ar eolas agus cleachtadh an phaiste i gcursaí teanga, matamaitice, agus ealaíne, ar mhaithe leis an aisiulacht ta na gnéithne éagsúla de á leagan amach faoi na ceannteidil seo a leanas:
>
> 1. Reiligiún
> 2. Teanga (i Gaeilge agus Béarla. Ní mór a bhfuil ráite faoi mhúineadh teanga a bhreithniú i gcónaí i gcomhteacs an da theanga a bheith a múineadh agus a n-úsáid).
> 3. Matamaitic.
> 4. Daoneolas agus Eolas Imshaoil.

5. Gníomhaíocht Ealaíne agus Chéardaíochta
6. Ceol.
7. Corpoideachas.[6]

Mar sin, ní miste a fhiafraí cá bhfuil an difríocht bhunúsach idir ábhar an churaclam nua agus ábhar an tseanchinn, nuair is léir an dá cheann fós a bheith go praiticiúil "á scaradh ina ranna ar a dtugtaí abhair léinn, tréimhsí ama i rith an lae do theagasc gach ábhair acu agus iarracht . . . ar chuid de na hábhair sin a chomhghaolú". Is léir, dar liom, ón doiléire sin agus on bhféinbhréagnú atá iontuigthe (ar lch 21), i.e. roinnt an churaclaim mar aonad chomtháithe, - thuas nár oibríodh amach riamh conas is fearr is féidir an curaclam a ionaontú nó a fheidhmiú go praiticiúil sa bhunscoil. An mbítear ag súil go dtarlóidh sé as a sruaim féin de thairbhe na fionnachtana agus na gníomhaíochta anseo 's ansiúd ag na daltaí - gan aon mhorphlean de churaclam ionaontaithe a bheith ag an oide roimhré lena stiúradh?

Chomh fada agus a bhaineann le Gaeilge a ionaontú le hábhair eile teagaisc tá an curaclam an-doiléir agus an-ghonta ar fad. As sé chéad leathanach ag cur síos orthu mar abhair scartha ar éigean a chaitear spás aon leathanagh amháin ar a gcoinhthathlú le Gaeilge. I gcás na Matamaitiche, na hEalaíne, na Staire agus an Chorpoideachais luaitear "teanga an teaghlaigh" mar bhonn leis an obair i dtosach. I gcás na n-ábhar eile (seachas Bearla) moltar úsáid na Gaeilge a leathnú de réir mar a bheidh feabhas ar éascaíocht nó oilteacht na ndaltaí inti. Moladh foirmiúil ar bith níl ann maidir le teagasc chun an dá theanga féin a chomhthathú le chéile.

Faoi mar atá an curaclam anois, féachtar ar fhorbairt éascaíochta oilteachta gach teanga mar ghnó an chúrsa sa teanga sin : ní admhaítear, maidir le comhtháthú, an pháirt a bhíonn ag na hábhair eile (Matamaitic, Stair, Tíreolaíocht, Ealaín, Corpoideachas, Ceol, 7rl.) i bhforbairt na teanga. Ach admhaítear go hindíreach in aiteanna eile é; mar shampla i leith na Matamaitice, deirtear i gcás na naíonan - "The work on shapes should be informal but the correct mathematical words should be given when required, e.g. square, triangle, circle, side, line, straight curved"[7]

> The teacher is aware of the importance of language in the development of mathematical concepts. The vocabulary introduced at Infant level will still arise and will be revised and extended, as appropriate. The aim will be to give a precise use of language and to supply the correct term or symbol as far as possible. While one would expect the correct use of rows, columns, wider than, difference, weighs, balances, measures, half quarter, add, subtract, triangle, cube, etc., and symbols such as = - +, terms like capacity, commutative, fraction, area, axis of symmetry should not be given at this stage as they are mostly names for concepts not yet fully developed. Terms of the former type should be given when they are needed and as they arise naturally from experience with materials in concrete situations. No form of vocabulary drill is envisaged. Discussion will take place frequently and will afford the teacher opportunities to introduce the necessary vocabulary which will give precision to the oral and written descriptions of the pupils. 8

An toradh ar an bhfaillí anseo - i gcás na Gaeilge - seo ná go bhfuil glún óg fásta aníos ar an nuachuraclam bhunscoile agus fiú daoine dá cuid ag dul le bunmhuinteoireacht gan bhuntéarmaíocht na n-ábhar scoile acu féin.[9] Iad gan a bheith ábalta fiú ainmniú a dhéanamh as Gaeilge ar na sléibhte, na locha, na cinn tíre, ar na heachtraí staire, ar na haibhneacha, ar na hainmheithe allta, ar bhláthanna nó ar mhionchoda coirp. Is cosúil nár cuireadh san áireamh fad a bhí a gcuraclam a scríobh; - in Éirinn sna seascaidí, an taighde a bhí ar bun ag an am sin ar an oideachas dátheangach ag Lambert i gCeanada.[10] Dá gcuirfí, ní foláir nó do dhéanfaí treisiú níos mó ar thacaíocht na dtuismitheoirí a ghnothú agus ar theagasc tríd an dara teanga nuair ba cheadmhach sin. Ní fearr puinn é cás na Gaeilge féin mar ábhar curaclaim, a bhfuil dhá chlár dhifriula ann dó, clár don Ghaeltacht agus clár don Ghalltacht. Ar éigean ata dealramh le deighilt dá leithéid go háirithe ó leathnaigh an Béarla sa ghaeltacht agus ó d'eascair na scoileanna lánGhaelacha sna bailte móra le bliana beaga anuas.[11] Ba réalaí mar shocrú é, dar liom, an curaclam a bheith ag díriú ar na trí mhoraicme scoileanna, - de réir mar a bhíonn an Béarla, an Ghaeilge, nó an dátheangachas cothrom chun tosaigh mar ghnáthmhéan cumarsáide agus teagaisc iontu.

I gcás na Gaeltachta admhaítear an cumas comhrá a bheith ag dul i laige ag daltaí Gaeltachta[12] agus lena fheabhsú moltar feidhm a bhaint as na haireagáin nua-aimseartha, ina measc an teilifís (lch 40). Sa Phlean Gniomhaíochta[13] (1983-1986) ó Bhórd na Gaeilge deirtear go bhfuil an Ghaeltacht á lagú ag teilifís chéanna an Bhéarla (lch 8) agus nách miste teilifís Ghaeilge a chur ar fáil (lch 20). Curaclam teann go leor é seo do scoileanna na fíor-Ghaeltachta ach an trealamh lena fheidhmiú a bheith ann: mar shampla, déantar tagairt do ionad na scéalaíochta agus na filíochta; is gann go leor fós é soláthar na leabhar scéalaíochta do dhaltaí ós cionn deich mbliana d'aois; tá an ghanntanas filíochta ann i bhfriotal daltaí an lae innui. Ó scriobhadh an curaclam seo breis agus cuig bliana déag ó shin tá claochló soisialta tar éis teacht ar an nGaeltacht, idir thionscal, theilifís, thusasóireacht agus eile: tá an Béarla imithe i dtreise agus, de réir sampla Harris,[14] ní bhíonn an Ghaeilge mar theanga theaghlaigh ach ag 20% de na daltaí Gaeltachta i Rang II. Mar sin tá práinn bhreise le treoir nua churaclaim i dtaobh teagaisc tríd an dara teanga, Béarla nó Gaeilge.

I gcás na Galltachta (Fíor-Ghalltachta!) tá sa churaclam nithe amhrasacha áirithe nár mhiste súil a chaitheamh orthu. Ar an gcéad dul síos aidhm dhoiléir choinníollach ("más é ár n-aidhm go mbéadh sé ar chumas na ndaltaí"[15]) atá leo, i gcomparáid le haidhmeanna eile atá níos cruinne sa churaclam, e.g. don Mhatamaitic nó don Chorpoideachas. Mholfainn féin a leithéid seo de aidhm: "Go mbeidh an dalta aonair ábalta agus toilteanach an Ghaeilge a úsáid as a stuaim féin chun é féin agus a shaol a chur in iúl de dhaoine eile, é a fhorbairt féin go nádúrtha ó abairtí gearra go habairtí casta". Ar an dara dul síos, tá ann cursaí closomhairc teagaisc a chuireann tús béime ar aithint, aithris agus athrá, agus a fhagann an tsaorchaint chun deiridh, fad a bhionn an ghníomhaíocht ag brath go hiomlán ar shamhlaíocht/chumas an oide aonair féin. Maítear gurb é seo "an modh múinte teangacha is údarásaí i measc teangeolaithe"[16] agus, dar liom, is míchuíosach an moladh é sin.

Ní lú é mo amhras i dtaobh chríonnacht na treorach i leith na Gaeilge mar theanga chaidrimh:

> Ba cheart an Ghaeilge a úsáid go coitianta sa scoil agus lasmuigh di - nuair a bhíonn na páistí ag obair agus nuair a bhíonn siad ag súgradh; is i nGaeilge a thabharfar gnáthorduithe na scoile, a dhéanfar gnáthchaint an ranga, a bheidh na focail mholta agus chearthaithe, agus na gnáthbheannachtaí. 17

> Feidhm neamhoifigiúil a bhaint as an nGaeilge oiread agus is féidir. 18
>
> Feidhm a bhaint as an nGaeilge oiread agus is féidir; láimhseáil gnéithe oiriunacha den churaclam agus mar theanga chaidrimh na scoile. 19

Ach, ar an oide céanna iarrtar an Béarla a labhairt freisin le linn a chuid oibre:

> Providing contexts which encourage the development of children's ability to talk spontaneously, coherently, clearly and confidently. Conversation arising from happenings of interest to the children, relating to (a) home, (b) school, (c) neighbourhood, (d) local events. Conversation arising from experience in other areas of the curriculum, e.g. Religious Education, Social and Environmental Studies, Mathematics . . .
>
> . . . The broad general aim of the school in the matter of providing for development of oral language skills might be summarized as follows:
>
> (a) to provide ample opportunities and incentives for every child to use speech, and thereby to develop the ability to express ideas clearly, fluently and articulately, and in a form which is correct and acceptable;
>
> (b) to train the child to listen intelligently, to think clearly and critically about what he hears, and to distinguish the salient points.
>
> Since spoken language will pervade all the learning activities of the school, the teacher will have many opportunities to work consciously and purposefully to develop the child's powers of oral expression . . . 20
>
> . . . in the Middle and Senior classes, the increase in individual and group work that follows the achievement of independent reading ability makes incidental conversation and discussion more necessary than ever. Each child will need the teacher's direction,

> guidance and encouragement, and the teache himself will want to ensure that at all times the work is purposeful and is developing along the right lines. Pupils will also derive much pleasure and considerable benefit from oral exchange of ideas with their fellow pupils. 21

Dá réir sin tá achrann ann, dar liom, i dtaobh na teanga caidrimh agus é sin idir dhá chuid den churaclam céanna. Easpa éifeachta, easpa spriocanna cinnte san dá theanga a leanann uaidh sin. An t-oide a mbeadh an dátheangachas cothrom a aimsiú aige níor mhiste do tráthchlár teanga a oibriú amach dó féin - ní hamháin don teagasc ach don chaidreamh freisin; rud éigin dá leithéid seo: don oide a bhfuil tráthchlár mion - roinnte aige:

Béarla/Gaeilge Mar Theanga Chaidrimh (T.C.)

(Béarla sa bhaile)

9.30 - 10.00	Béarla (T.C.) - News 7 rl
10.00 - 10.10	Rolla a ghlaoch - ainmneacha i nGaeilge
10.10 - 11.00	Gaeilge (T.C.) - Comhrá - leitheóireacht/scribhneóireacht/filíocht/scéalaíocht
SOS	(Bearla sa chlos)
11.05 - 12.00	Béarla (T.C.) - Matamaitic/Béarla
12.00	Paidreacha i mBéarla agus i nGaeilge
12.05 - 12.30	Gaeilge (T.C.) Creidimh
SOS	(Béarla sa chlos)
1.00 - 1.30	Béarla (T.C.) Béarla/Matamaitic
1.30 - 2.00	Gaeilge (T.C.) Eolas Imshaoil
SOS	(Béarla sa chlos)
2.05 - 2.30	Béarla (T.C.) Corpoideachas/Ceol
2.30 - 3.00	Gaeilge (T.C.) Ealaín/Ceardaíocht

Rud ana-dheacair é na daltaí a shíorstiúradh i dtreo an chaidrimh i nGaeilge, go háirithe nuair nach léir do dhaltaí í a bheith bainteach leis an saol mór sa bhaile, sna scannáin, ar theilifís nó eile. Níos casta fós é an scéal le tráthchlár blocach.

Ní fearr, puinn, dar liom, an scéal maidir le gnaththeagasc na Gaeilge mar ábhar inti fein. Is minic go múintear abairtí an Chomhrá Fhoirmiúil i slí go mbíonn siad beagnach de ghlanmheabhair ag daltaí, ach ní hé an dua céanna de ghnáth a chaitear le cleachtadh gramadaí nó le saorchaint. Má mhuintear caint na maidine faoi shaol an dalta féin ina thimpeallacht féin, is annamh a chuirtear i bhfeidhm í le Nuacht no Dialann a scríobh bunaithe uirthi. Romhinic ní dhéantar de scribhneóireacht ach athscríobh (i saotharleabhair) ar ábhar an Chomrá Fhoirmiúil chéanna. An t-ábhar céanna a bhíonn faoi chabidil i leabhair léitheoireachta agus is beag saorléitheoricheachta (no leabhair chuige) a bhíonn ann: is minic gur leamh le daltaí an t-ábhar céanna agus gur leimhe fós an módh teagaisc, "Osclaígí na leabhair, léigh dom tusa" - gan léiriú roimhré, gan mhúscailt suime, gan chomórtas. Gan taighde ceart déanta ar na deacrachtaí a bhaineann leis an dara teanga a léamh.[22] Claontar le praiseach cheart a dhéanamh den fhilíocht mar úsáidtear í chun foclóir agus struchtúir Gaeilge a mhúineadh agus ní mar shaothar ealaíne le mothú agus léargas a fhorbairt: is gnách gurb iad na daltaí a léann i dtosach i agus nach léitear dóibh í.[23] Ar éigean, dar liom, a bhacann oidí le scéalaíocht i nGaeilge nó le gnéithe eile da réamhléitheoreacht, gan trácht ar a Réamhscribhneoireacht. Réamhchaint ní luaitear in aon chor: sin i an tréimhse nách mór do dhalta a chaitheamh ag sú isteach na teanga chur barrstruchtúir a chruthú dó féin sa chaint. Ní go fairsing ach oiread a mhúintear paidreacha i nGaeilge nó a chleachtaítear go leanúnach o rang go chéile lag. Mar sin, ní hé ábhar curaclaim na Gaeilge féin is mó atá lochtach ach easpa béime ar nithe áirithe, bunúsacha atá istigh ann cheana.

Ná ní fearr, ar an iomlán, an toradh go dtí seo, ar éifeacht an churaclaim nua maidir le cumas na ndaltaí i nGaeilge - an cumas sin a mheas go suibiachtúil i dtuairmíocht oidí agus go hoibiachtúil le trialacha iolrogha, 7rl.

Bíodh gur cheap oidí scoileanna na gclochar (1975) gurb é "an buntáiste is mó a bhaineann leis an mbuntús ná an t-aoibhneas a bhaineann paistí as" agus go ndúirt siad "The readers based on the lesson are a great incentive to reading Irish" (lch 24), d'admhaigh na siúracha "go raibh laige ag teacht ar an obair scríofa".[24] Maidir leis an leitheoireacht agus leis an scribhneoireacht d'aontaigh baill Chumann Múinteóiri Éireann (1976) leo cuid mhór ach ba mhó díobh siúd a cheap gur in olcas a chuaigh an cumas labhartha, agus an litriú agus ar an iomlán nách raibh sa churaclam maidir le Gaeilge ach "an overloaded, unrealistic programme particularly in Naíonán section".[25] Tá an chéad chuid den chúntas sin ag teacht le tuairimí measta na bpríomhoidí (1977) . . . "they even report deterioration in some cases - for oral Irish and for the presentation of written work in Irish (neatness, spelling, handwriting).[28]

Mar chúntas ar thaighde oibiachtúil le trialacha iolrogha idir na blianta 1973-76, luann Greaney (1978) "an underestimate of the overall extent of the decline in Irish reading and usage" agus an turnamh sin sna hardranganna ach go háirithe.[27] Taighde oibiachtúil eile ar chumas labharta agus éisteachta a thug ar Harris (1984) a scríobh -

> an average of about one third of pupils
> in ordinary schools attain mastery of

> each of the Nuachursaí objectives in spoken Irish at sixth, fourth and second grade. Another third, on average, makes at least minimal progress . . . In any case, the results of the present study now indicate clearly that the authors of the Nuachursaí were over-optimistic. 28

I dtús an ailt seo luadh cosúlacht idir an Curaclam agus an Bíobla. Ní lú an neamh chosúlacht gur féidir an curaclam a athscríobh - gan ardinspioráid. Sa bhliain 1971 a foilsíodh an "curaclam nua". Éacht oideachasúil a bhí ann a leithéid a thionscnamh ag an am. Idir an dá linn táimid tar éis teacht ar na laigí ann agus ionainn féin mar oidí á leanúint: Mar a deir an curaclam féin:

> Ní cóir áfach a mheas go bhfuil na hathruithe a mholtar ar aon bhealach socair, cinntitheach. Beidh gá le taighde agus le meastóireacht fhéiltiúil mas áil linn an Curaclam ceann cuinge a choinneáil le cora an tsaoil. 29

Dar liom go bhfuil sé thar am tosú ar an obair sin. Cloch bheag ar an gcarn an paipéar seo.

TAGAIRTÍ

1. An Roinn Oideachais, *Curaclam na Bunscoile, Lámhleabhar an Oide*, (Baile Átha Cliath : Oifig an tSoláthair, 1971), lch. 12.
2. Ibid., lgh. 15-18.
3. Owen Egan, "Informal Teaching in the Primary School", *Iris Éireannach an Oideachais*, 16, Uimh. 1, Samhradh 1982, lgh. 16-26, lgh. 22-24.
4. Ibid.
5. *Curaclam na Bunscoile*, lgh. 18-19.
6. Ibid., lch. 21.
7. Ibid., lch. 137.
8. Ibid., lch. 171.
9. E. Ó Súilleabháin, "Múineadh na Modhanna Múinte", *Teagascna Gaeilge*, 2, 1981, lgh. 42-64.
10. W. E. Lambert agus G. R. Tucker i *Psychology Today*, Meán Fomhair, 1973.
11. Caoimhín Ó h-Uiginn, "Gaeilge sa Scoili gComhthéacs na Timpeallachta" *Teagasc na Gaeilge*, 1, 1980, lgh. 51-59.
12. Curaclam na Bunscoile, lgh. 18-19.
13. Bord na Gaeilge, *Action Plan for Irish : Plean Gníomhaíochta Ghaeilge, 1983-86*. (Baile Átha Cliath : Bord na Gaeilge, 1983).
14. John Harris, *Spoken Irish in Primary Schools*, (Baile Átha Cliath : Institiúd Teangeolaíochta, 1984).
15. *Curaclam na Bunscoile*, lch. 58.
16. Ibid., lch. 55.
17. Ibid.,
18. Ibid., lch. 57.

19. Ibid., lch. 63.

20. Ibid., lgh. 82-83.

21. Ibid., lch. 102.

22. John Harris, "Research on Reading in a Second Language", *Teangeolas*, 9, Earrach, 1980, lch. 30.

23. E. Ó Súilleabháin, "Teagasc na Filíochta" (le foillsiú) i *Teagasc na Gaeilge* 4, 1985.

24. Conference of Convent Primary Schools, *Evaluation of the New Curriculum for Primary Schools* (Dublin : Conference of Convent Primary Schools, 1975), lch. 4.

25. Irish National Teachers' Organisation, *Primary School Curriculum : Curriculum Questionnaire Analysis*. (Dublin : INTO, 1976), lgh. 11, 24.

26. P. J. Fontes and T. Kellaghan, *The New Primary School Curriculum : Its Implementation and Effects* (Dublin : Educational Research Centre, 1977).

27. Vincent Greaney, "Trends in Attainment in Irish from 1973 to 1977", *Iris Éireannach an Oideachais*, 12, 1978, lgh. 22-35, lch. 32.

28. John Harris, *Spoken Irish in Primary Schools*, lgh. 138-140.

29. *Curaclam na Bunscoile*, lch. 20.

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